PANZERJÄGER in Action

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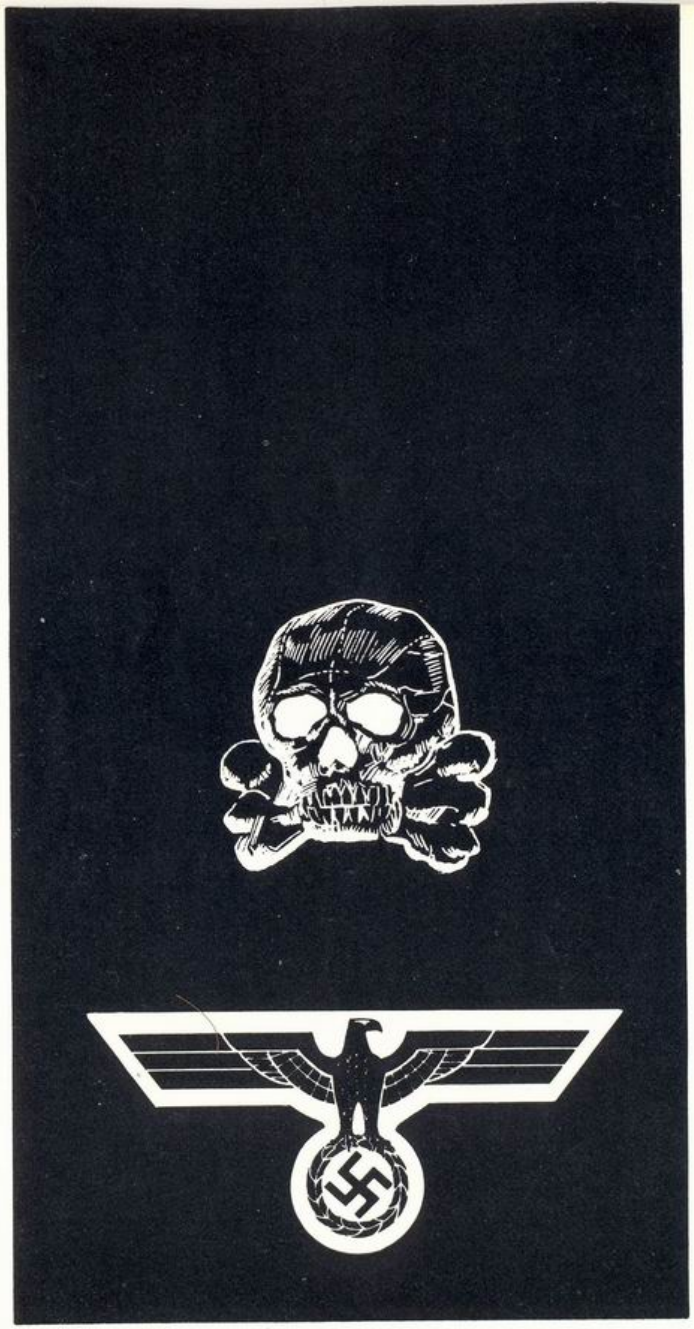

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Panzerjäger (tank hunter) actually includes anyone who engages in seeking out and destroying enemy armor. The infantryman with his "Panzerfaust", "Bazooka", "Piat" or "Molotov cocktail", the gunner behind his artillery or anti-tank gun as well as the Ju 87 D's, HS 129's or Stormoviks whose pilots engaged themself in the role of **Panzerknacker** (tank busters). The most famous and successful was Oberst Hans Ulrich Rudel who alone was credited with the destruction of over 500 Red Tanks while flying his 3.7cm Flak armed Junkers Ju 87 D.

In this volume however, it is our intention only to illustrate and discuss the weapon which was created for the sole purpose of seeking out and destroying enemy tanks, hunting for them, the **PANZERJÄGER** and **JAGDPANZER** of the Second World War.

As in the First World War when German troops first encountered the new British Tanks completely unprepared, so did the German troops of the Second World War face an armored enemy again unprepared, namely the Russian T-34 during the early days of the Eastern Campaign.

Panzerjäger

The only mobile fully-tracked anti-tank weapon available to the **German Panzerjäger** units was the converted Panzer I B with a Czech 4.7cm anti-tank gun. One hundred thirty two vehicles were built by Alkett and delivered to units in France, North Africa and Russia. Vast numbers of Russian 7.62cm guns that had been captured by the advancing Wehrmacht were mounted on the well proven Czech Pz.Kpfw. 38(t) and a formidable weapon, the "Marder III", started punching holes into the T-34 to great effect.

Characteristics of the **Panzerjäger,** the high and open fighting compartment, were also its greatest drawback and as the war continued, newer and better weapons appeared on the battlefields.

The great penetrating power of the 8.8cm Flak originally designed as an anti-aircraft gun, soon drew the attention of the Panzerjäger planner in the Waffenamt and in 1943 the "88" mounted on the chassis of a Panzer IV was delivered to the Panzerjäger units on the Eastern Front.

The 8.8cm PaK 43/1 could pick any enemy tank at a distance up to 2,000m while remaining at a safe distance from the guns of his opponents.

It is documented, that a Kompanie of "Nashorns" (13 vehicles) destroyed the following AFV's in 17 days for the cost of only two of their own guns:
one KW II, 19 KW I, 30 T-34, 1 "Grant", 1 T-60, 5 T-10 and one mobile rocket launcher (Stalinorgan).

The final step in the development of the Panzerjäger weapon led over the Sturmgeschütz to the **Jagdpanzer,** a heavily armored turretless tank, a somewhat less expensive solution to the ever increasing demands for a standard all around weapon capable of fulfilling many roles.

Armed with the 7.5cm PaK or KwK guns, the 8.8cm PaK and the 12.8cm PaK, the Jagdpanzers in the hands of capable crews accounted for the destruction of many enemy tanks, anti-tank guns and other AFV's.

The Panzerjäger arm belonged to the Panzertruppe, with black uniforms and the pink color piping of the Panzertruppe. Later on field gray fabrics tailored in the Panzer uniform pattern were issued to the Panzerjäger and Sturmgeschütz crews. However, since many Panzerdivisions were re-equipped with Jagdpanzer and Sturmgeschütze to replace their losses of tanks, one can find photographs showing crews in black uniforms or Panzer uniform parts manning a Stu.G, Jagdpanzer IV or Jagdpanther as late as 1945!

I hope the reader will find the photos and color drawings in this volume as interesting and exciting as I did while putting this book together and I am certain that "Panzerjäger in Action" will be a valuable addition to your Squadron/Signal Armor Series.

Uwe Feist

A NOTE ON VEHICLE DESIGNATIONS

Virtually all German tracked vehicles were classified by the German ordnance office as "special purpose vehicles." In the German language this was **Sonder Kraftfahrzeug,** abbreviated as **Sd. Kfz.** Each vehicle classified as a special purpose vehicle received a classification number, such as Sd. Kfz. 101 (**Panzerjäger I**) or Sd. Kfz. 173s (**Jagdpanther**).

Aside from the ordnance office special vehicle classification and number, the vehicle was often given an official designation which described the vehicle in detail, such as **Panzerjäger 38(t)** für 7.62cm. PaK 36(r), a translation of which would be "tank hunter, type 38" (Tschechisch) for the 76.2mm anti-tank gun type 36 (Russian). This describes a vehicle made up of the chassis of the Czechoslovakian light tank, type 38, on to which a captured Russian 76.2mm anti-tank gun has been mounted.

Quite frequently the vehicle received even a third designation in the form of an official nickname, and in troop usage, the nickname was used as a reference to the vehicle type almost exclusively, regardless of the vehicle's Sd. Kfz. designation or it's official title. A good example of this usage is in reference to the **"Marder".** There were both **"Marder II"** and **"Marder III"** vehicles; a number of chassis types and armament combinations made up the **"Marder II"** series, and the **"Marder III"** series also had a number of vehicle/armament variations. They were all, however, called **"Marder".**

Since there seems to have been an official designation given to each vehicle, while several vehicles might have shared the same Sd. Kfz. designation and number, and even more sharing the same nickname, the order of presentation in this book will be by Sd. Kfz. progression, yet each vehicle having the same Sd. Kfz. number will be discussed so that the reader will be better able to determine the differences between vehicles.

A Oberfeldwebel of the Fallschirmjäger Panzer-Division "Hermann Göring" stands in the fighting compartment of his Panzerjäger beside the breech of the Soviet 76.2mm gun. Note the very pronounced muzzle brake of the gun — an addition to the Soviet field piece by the Germans to help make the gun a bit more accurate.

Panzerjäger I

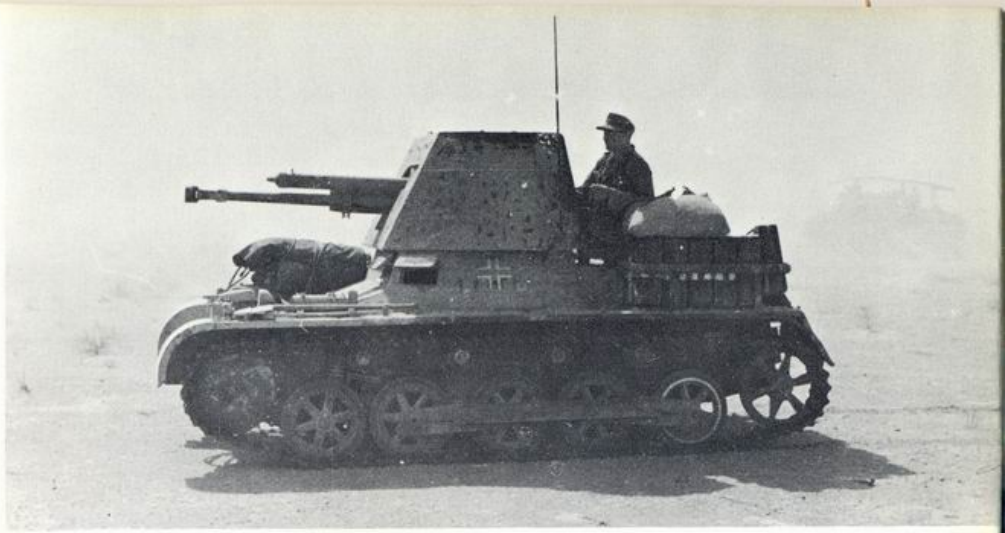
4.7 cm PAK (t) auf. Sf.I (Ausf. B)

After the Panzerkampfwagen I was taken out of first line service as a battle tank in 1940, over 350 of the Panzer I chassis were used as the basis of Germany's first self-propelled anti-tank guns. The modifications were made in 1940 and 1941 by Alkett and consisted of removing the turrets of the vehicles, and mounting shielding around the tops of the fighting compartments.

The armament chosen for Germany's first tank destroyer was the robust Czechoslovakian designed 47mm anti-tank gun. The gun was effective at close ranges against most armored vehicles of the times, but the large Soviet tanks and the British **"Matilda"** infantry tanks could withstand hits with no trouble at all.

In an attempt to better utilize the large stocks of captured weapons and enemy equipment, a number of French 37mm and 47mm guns were mounted on captured French armored vehicle chassis and also referred to as **Panzerjäger I,** but the designation did not stick.

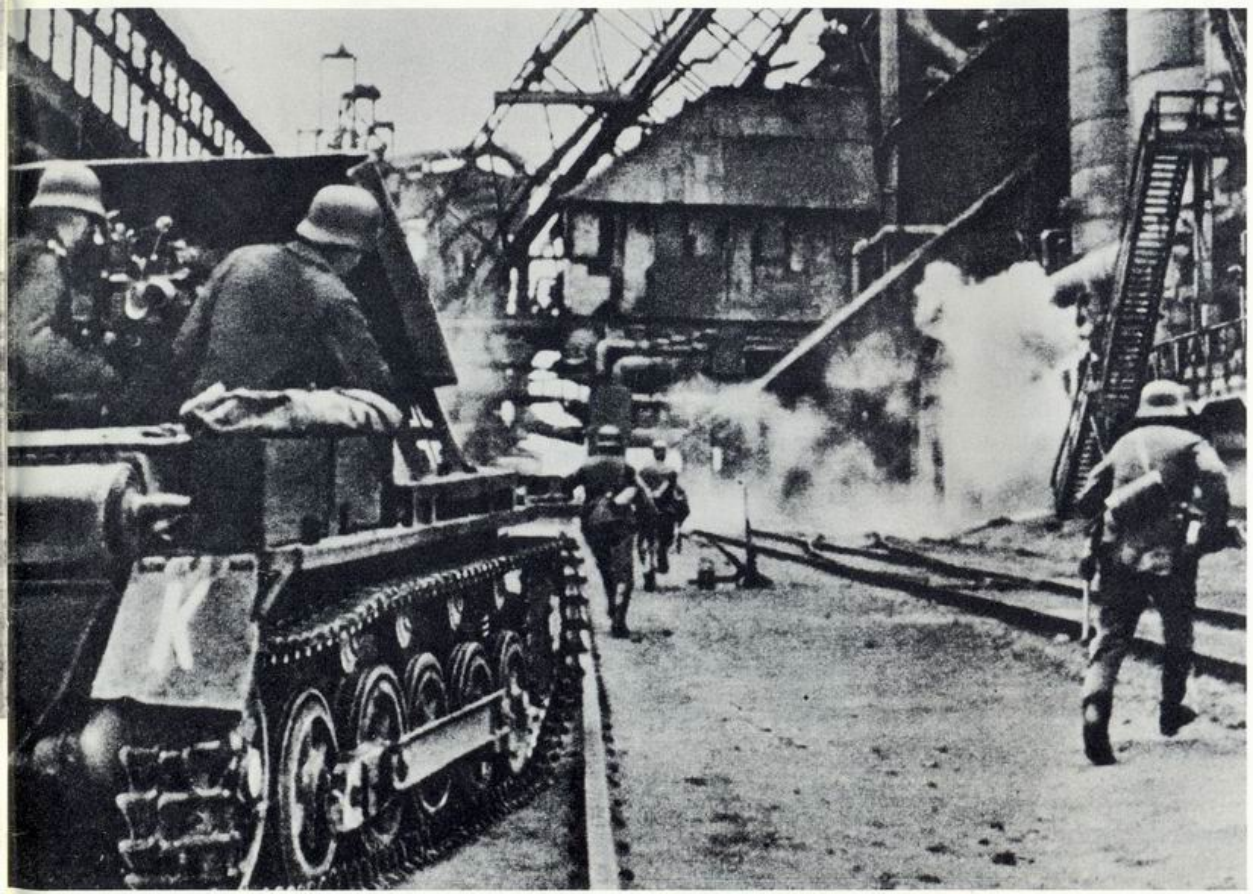
Panzerjäger I's saw action in Russia and the African desert during 1941, but even though they were Germany's first tank destroyers, they were quickly replaced by vehicles that were more heavily armed and better suited for the tank killing mission.



The **Panzerjäger I,** Germany's first WWII self-propelled anti-tank vehicle, was built on the chassis of the **Panzerkampfwagen I,** Ausführung B, a German tank that was developed during the Spanish Civil War and also served in Poland and France.

The **Panzerjäger I** was constructed by removing the machine-gun armed turret of the **Panzerkampfwagen I** and adding light armor plating over the top decking and around the Czech-built 47mm anti-tank gun to protect the crew. The gun was effective at short and medium ranges against most armor, but not the larger Soviet and British tanks.

The Czechoslovakian-built 47mm anti-tank gun featured a muzzle brake and a recuperator mechanism that was mounted over the barrel, giving it a distinctive shape. This weapon was originally fitted in the Czechoslovakian **Panzer 35 (t)**, a medium tank used by the Germans in Poland, France, and Russia.



K

Heeresgruppe von Kleist

A **Panzerjäger I** of one of Von Kleist's units provides direct fire support for infantrymen as they rush to neutralize a Soviet strongpoint in a built-up industrial area of this Ukranian city during the opening phases of the invasion in the East.

Panzerjäger "MARDER II"

The appearance of the **T-34** on the Eastern Front made the standard German anti-tank weapons; the 37mm, the 47mm, and the 50mm guns obsolete overnight. With her stout, sloped armor, the **T-34** was impervious to hits from these weapons at combat ranges. A heavier projectile was needed to combat the **T-34** and the heavier Soviet tanks.

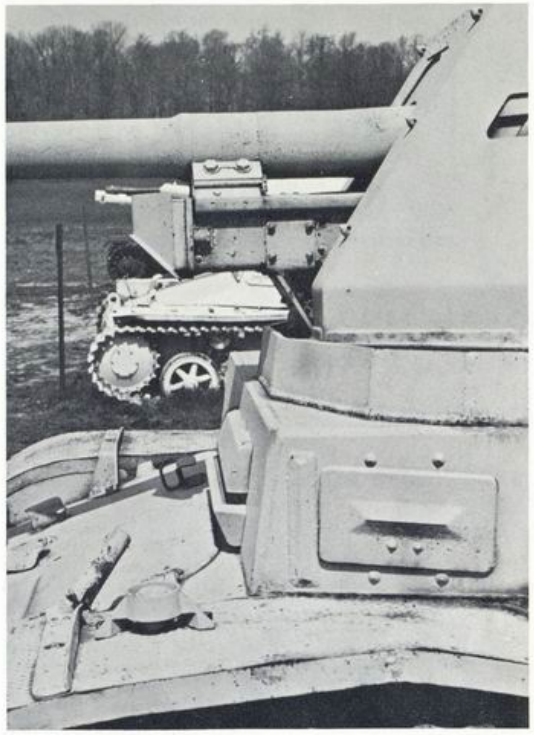
By the middle of 1942, enough of the new 75mm PaK 40 anti-tank guns had been produced to warrant their installation on mobile platforms. To do this, the chassis of the **Panzerkampfwagen II** was chosen. The particular chassis used for this variant came from the series **A, B, C,** and **F** of the **Panzer II.** The **D** and **E** series chassis were quite different from those of the **A, B, C,** and **F** versions and were used for another self-propelled **Marder** vehicle.

The fighting compartment of the **PzKw II** was opened by the removal of the turret and the top decking in front of the engine compartment. The big 75mm PaK 40 anti-tank gun was mounted at the front of the opened fighting compartment minus its wheels and trails. Light armor sides and front plating was added to the fighting compartment in order to provide protection from flying fragments and grenades.

In combat, the 75mm PaK proved her worth, but the performance of the obsolescent **Panzer II** carriages proved less than desired. These vehicles were produced from mid-1942 until mid-1943 and proved to be an effective stopgap until a better vehicle could be made available.

"Kohlenklau"—"coal thief", a nickname given to this vehicle shows up under the cartoon face on the side shielding. The nineteen white stripes on the PaK 40/2's gun tube is an indication of the crew's success in battle — nineteen enemy armored vehicles destroyed.

(Right) When fighting from ambush the 75mm PaK 40 anti-tank gun could put the heaviest of Soviet armor out of action. This view shows the gun shield of the **Marder II's** PaK 40/2. The small aperture on the side of the shield was the hole through which the gunlayer sighted the big anti-tank gun.



(Above Left) The **Panzer II** was obsolete by 1941 and since a considerable number of these vehicles were still in service and the ever increasing demands for mobile anti-tank guns made many improvisations necessary, it was only natural that the Pz. II chassis would be chosen to carry an anti-tank gun.

(Center Left) During an awards ceremony this **Marder II** passes before the camera as other vehicles of the same unit drive by in the background. Note the rather sparse camouflage paint job — brown splotches over a sand yellow base paint. The vehicle carries a large nonstandard storage box on its right front fender. Frequently, the presence of extra storage containers of the type shown here indicated that the vehicle was operational in an area where supplies did not arrive on a regular basis.

(Left) This view shows the built-up side armor plating of the 75mm anti-tank gun armed **Marder II.** This vehicle was built on the chassis of the obsolescent **Panzerkampfwagen II,** versions **A, B, C,** and **F.** All of these versions featured the same kind of suspension and trackwork.

Panzerjäger II

7.62 cm PAK (r) auf. Sf.II (Sd.Kfz. 132)

Three other chassis/gun combinations came under the designation of Sd. Kfz. 132. All were nicknamed **Marder.** The reason for the same Sd. Kfz. number appearing with all three vehicles was the fact that all of them used the same chassis.

This chassis was the Panzer II, series D and E, frequently referred to as the "Neuer Art", or new style chassis. The chassis featured torsion bar suspension and large, rubber tired road wheels, as opposed to the earlier layout of external leaf spring suspension and five sets of medium sized road wheels.

The first of the three chassis/gun configurations was armed with the captured Soviet 76.2mm FK296 anti-tank gun. Only a few of these were used because the supply of captured Soviet 76.2mm anti-tank projectiles was inadequate.

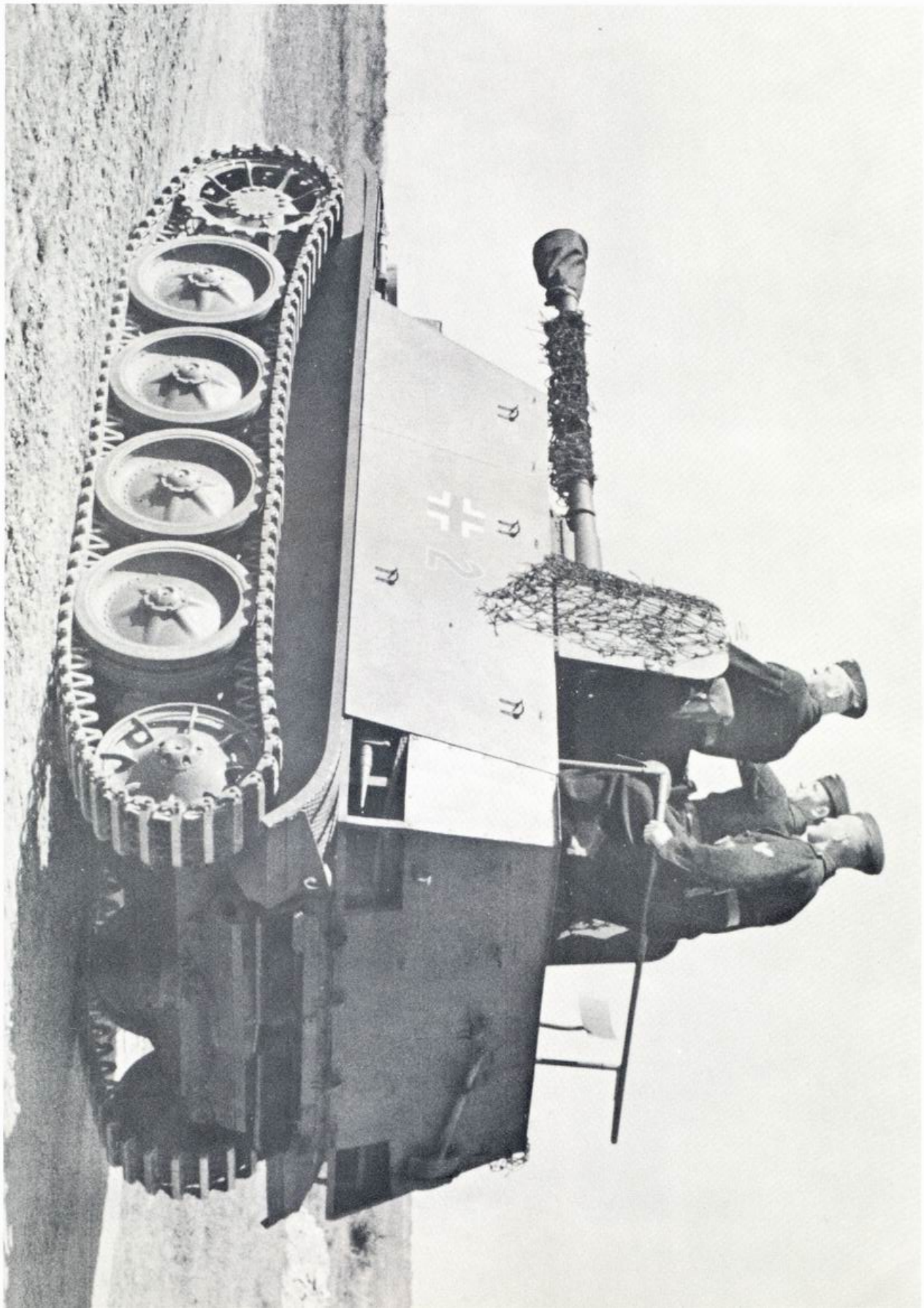
The second combination featured the same 76.2mm captured Soviet anti-tank gun, but it had been re-chambered to accept the German 75mm PaK 40 projectile so that supply problems would not hamper the vehicle's effectiveness.

The final combination of which only a small number were made available featured a later version of the Soviet 76.2mm anti-tank gun that had also been re-chambered for the German 75mm anti-tank round. This version was distinguished mainly by the gun shield on the vehicle which was smaller than the gun shields on the other two versions.

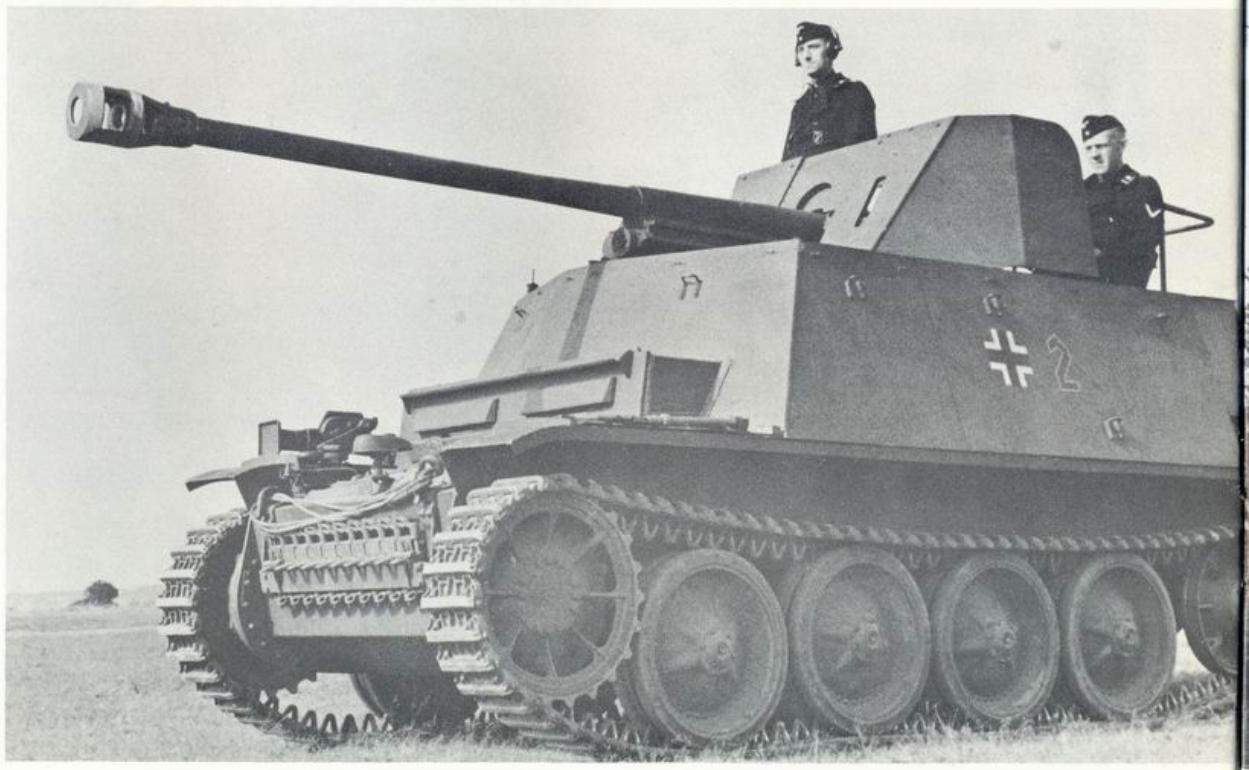
Approximately 200 of these vehicles were built, most serving on the Eastern Front, although a small number of them were sent to occupied France for a period of time.

The Sd. Kfz. 132 "Marder III" shows off the barrel of it's Soviet-built 76.2mm anti-tank gun and its frontal armor. These Soviet guns were rechambered to accept the German standard 75mm anti-tank round, as the 75mm PaK 39 and PaK 40 anti-tank guns were in short supply at the time these vehicles were built.

This Sd. Kfz. 132 shows off its suspension and trackwork. These vehicles were built on the chassis of the **Panzerkampfwagen II,** Ausführung D and E, sometimes known as the "new style" Panzer II. When the "new style" Panzer II finally took the field, it became known as the "Luchs", or Lynx reconnaissance tank.



A Marder III at work on the Eastern Front. The gunner loads another big round as the smoke and dust from the previous firing settles around the vehicles. Notice that the vehicle has been fitted with an MG34 machine gun, mounted on the side of the gun shield.



A nice view of the late Marder III. In no way comparable to a battle tank, these little tank destroyers and their big guns were often called upon by hard-pressed commanders to substitute for the tanks the Germans didn't have, and to a great extent, they performed their surrogate duties with a great degree of proficiency.

ALARM! The black-uniformed crew of this **Marder III** leap to their vehicle to get underway. Although the crew was made up of four members, only two of them, the gunner and the commander, remained in the fighting compartment, while the other two crewmembers, the driver and radioman, were stationed inside the vehicle.

As this heavily camouflaged **Marder III** moves slowly by, the crew members crane their necks to see the Soviet army prisoners of war who are lined up under guard by the side of the road, awaiting instructions to move to the rear.

At full elevation the 76.2mm gun of this **Marder III** is an impressive sight. The Soviet gun, called by the Germans "Feldkanone 296", featured a vertical drop breech block rechambered for the German 75mm shell. The device stored on the rear plate of the fighting compartment is an engine crank.

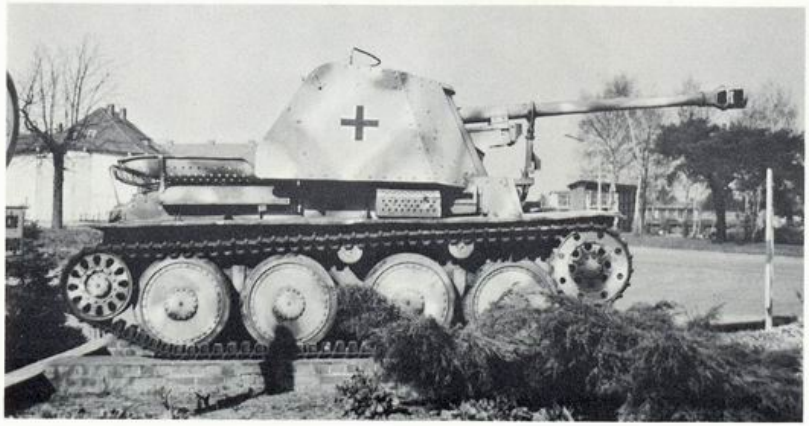
Panzerjäger "MARDER III"

7.5 cm PAK 40/3 L/46 (Sd.Kfz. 138)

The Sd. Kfz. 139 **"Marder 38"** was the first of the Marders to be built in production numbers. She was basically a slightly modified Czechoslovakian TNHP-S tank chassis mounting a captured Soviet 76.2mm FK296 anti-tank gun that was re-chambered to accept the German 75mm round, as were the weapons that armed the late version of the **"Marder II"** series. Although all other Marder vehicles were being produced concurrently, the Sd. Kfz. 139 was the first to see service because of the availability of the chassis and the armament.

Although they were somewhat unsophisticated in design and suffered from a relatively high silhouette and center of gravity, the Sd. Kfz. 139 proved robust and packed such a heavy punch that the British thought that they were facing a new German 88mm self-propelled gun. Of the more than 400 vehicles built, over 100 of them were sent to Africa, the rest served with great distinction in Russia.

"Marder 38" — the Sd. Kfz. 139. This vehicle featured the 7.5cm PaK 40/3 anti-tank cannon and was developed on the chassis of the Czechoslovakian light Panzer 38(t) tank. Because of the relatively minor modifications to the chassis, the gun was mounted directly on top of the tank's fighting compartment and suffered from its relatively high silhouette.



As French bicyclists watch on these two **"Marder 38's"** await further orders under the cover of the trees. Both vehicles feature desert sand base paint over which brown and green streaks have been painted. This version of the Selbstfahrlafette 38(t) was the H version. Selbstfahrlafette — self-propelled carriage.

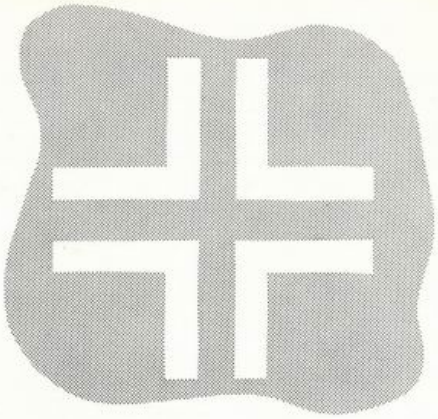
In low gear this **"Marder III"** moves slowly up a hill on the outskirts of a Russian city. The vehicle carries a large amount of personal gear and spares on the rear decking over the engine, indicating that the crew has been in action for a while.

Discovered in an advantageous ambush position, this **"Marder III"** has her 76.2mm anti-tank gun pointed down a road covering it completely. Barely visible is the Czechoslovakian-built machine gun mounted in the bow plate of the carriage on the left side of the driver's compartment.

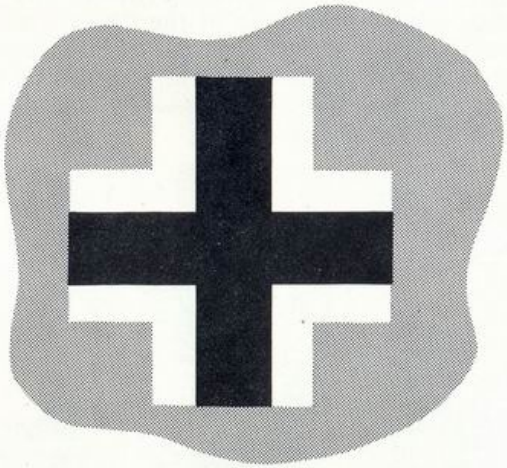
Almost a third of these vehicles were sent to Rommel's Afrika Korps to bolster his rapidly dwindling anti-tank forces.

Heidei

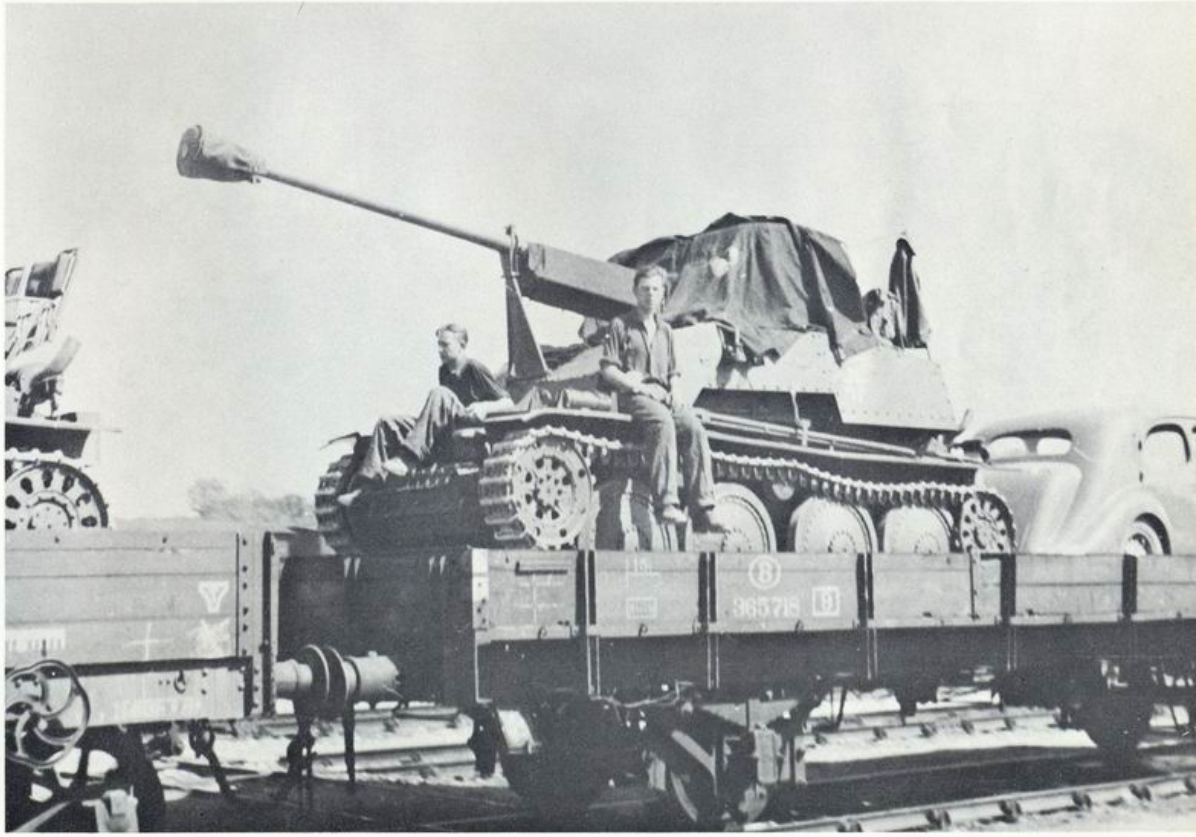
As two crewmen man the gun, this **"Marder III"** raises a cloud of dust along the dirt road. Although fully tracked, these vehicles suffered considerably when it came to mobility in the mud because of their narrow tracks.



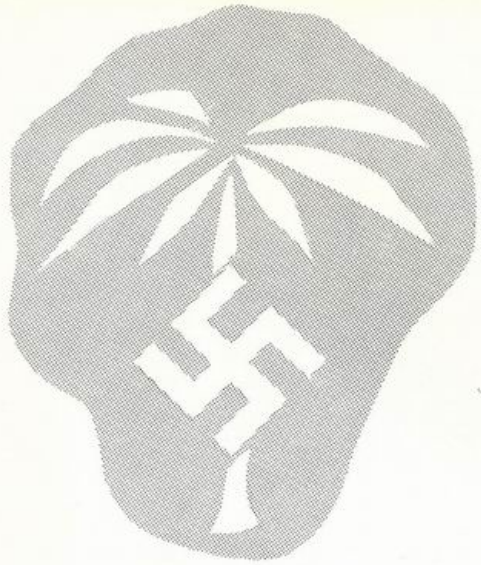
Loaded on railroad flatcars, these **"Marder III's"** are prepared for a trip to the Eastern Front and subsequent action there. Note the large canvas tops that have been erected over the open fighting compartments to protect the sensitive breeches of the weapons from the elements.



Another view of the **"Marder III's"** on the railroad flatcars. As a further means of protection for their anti-tank guns, canvas protective covers have been placed over the muzzle brakes as well as around the recuperating mechanisms underneath the gun barrels.



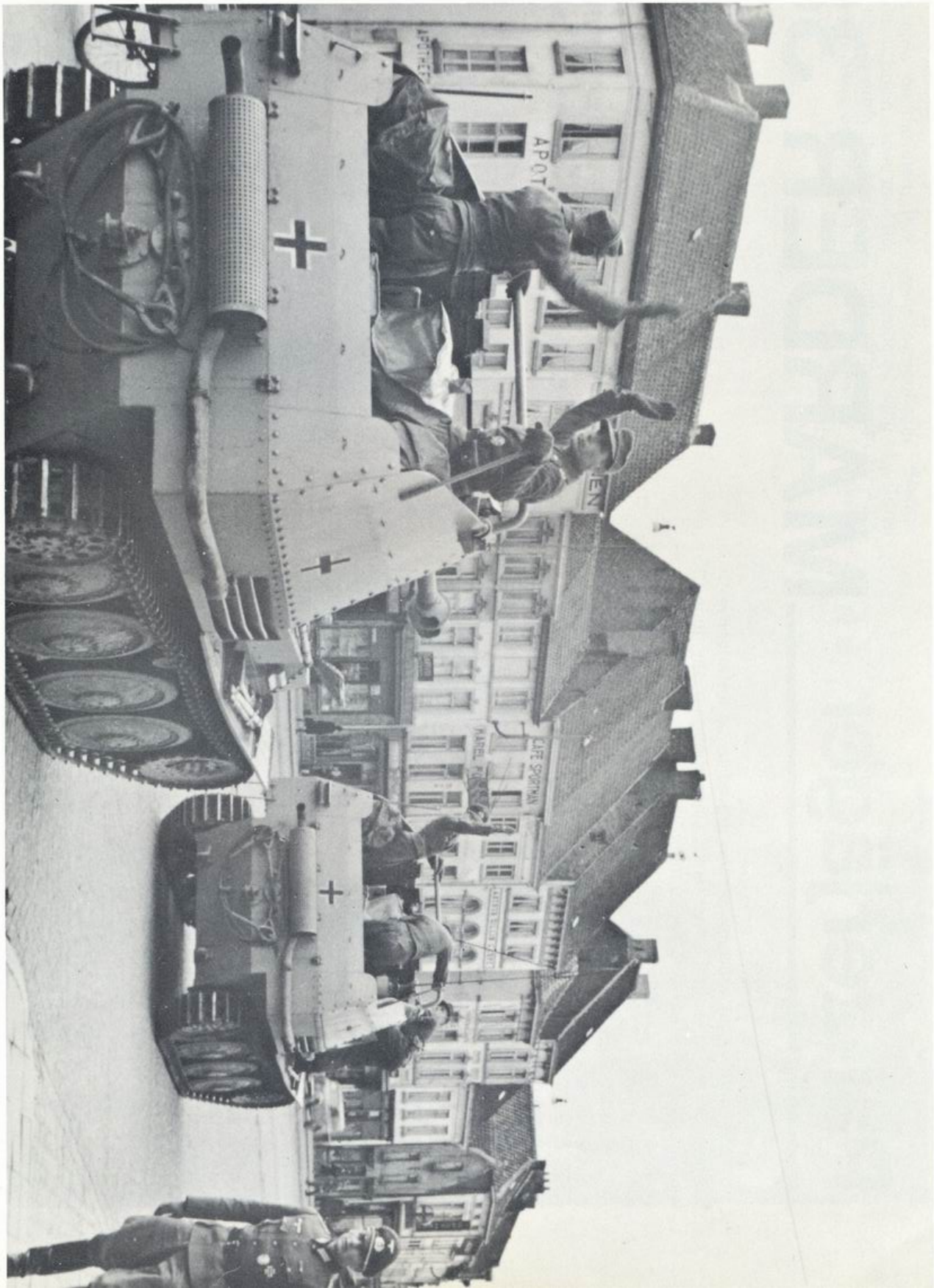
A very interesting photograph of the **"Marder III"**. The first few month's production (over one hundred vehicles) of the Sd. Kfz. 139 went to Rommel's Afrika Korps where one of the Marder's biggest enemies was the British Matilda infantry tank. After first actions the "Marders" proved to be so effective that the British thought that the Germans had found a way to mobilize their deadly 88mm gun.



AFRIKA KORPS

This view of the Sd. Kfz. 139 **"Marder III"** on display at the armor museum of the Aberdeen Proving Grounds in Maryland shows the suspension of the Czech Panzer 38(t) and the bolted and riveted fighting compartment and gunshield. Notice the sturdy gun travel lock which held the long barreled anti-tank gun in place when the vehicle was traveling or being transported.

Fresh crews and new vehicles. These Sd. Kfz. 138 **"Marder 38's"** move through a small town on their way to the front. Note the exhaust pipes and mufflers at the rear of the vehicles and the exhaust leads that extend from the middle of the chassis backwards, indicating that the engines are mounted in front of the gun positions.



Panzerjäger "MARDER 38"

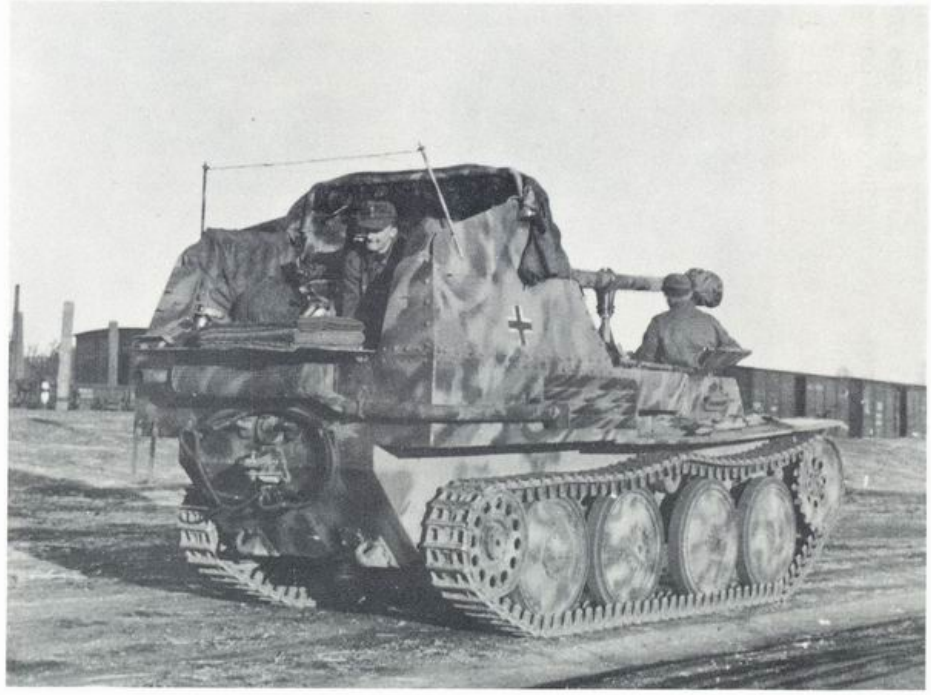
The 75mm PaK 40 anti-tank cannon proved to be an effective weapon with which to fight Soviet tanks. Once enough of the guns were available, the Germans began mounting them on the **PzKw II** chassis in order to create mobile anti-tank forces to bolster their armored units.

Concurrent with the development of the **"Marder II"** series of vehicles was the birth of the "Marder 38", another tank hunter. The vehicles made available for this series was the Czechoslovakian TNHP-S light tank, known by the Germans as the Panzer 38(t). As with the "Marder II" modifications, the turret of the tank was removed and minor changes made to the chassis top decking to accept the anti-tank gun. Light armor plating was built up around the sides and front of the vehicle to provide protection for the crew members manning the gun.

Over 400 of these vehicles were produced.

While production of these vehicles was taking place, further development of the Panzer 38(t) chassis was taking place. The purpose of this development was to modify the chassis so that a heavy-caliber field gun could be mounted on the vehicle to provide infantry support in the reduction of strong points, and to serve as an interim vehicle in mobile medium artillery batallions of armored divisions. In order to properly seat the gun, the engine was taken from the rear of the chassis and placed in the middle of the vehicle where the fighting compartment once was. This left the rear portion of the vehicle free. A number of these vehicles were fitted with the PaK 40 anti-tank gun in order to further strengthen anti-tank defense on the Eastern Front. These vehicles, also carrying the Sd. Kfz. 138 identifier, became known as the 7.5cm PaK 40/3 auf Sfl 38(t) Ausf. M. The vehicle was so successful with its lower silhouette and lower center of gravity that over 800 of them were built.

The Sd. Kfz. 138 **"Marder 38"**. Put into production in mid-1943, this vehicle featured the same chassis as the Sd. Kfz. 139, but unlike that version of the "Marder III". The engine was moved from the rear to the middle of the vehicle so that the fighting compartment could be lowered into the chassis at the rear of the vehicle.



With its crew on the alert, this heavily camouflaged **"Marder"** moves slowly down a road past the dismembered wing of a British Horsa glider bearing the black and white stripes worn by Allied aircraft during the opening phases of the Normandy invasion in June of 1944.

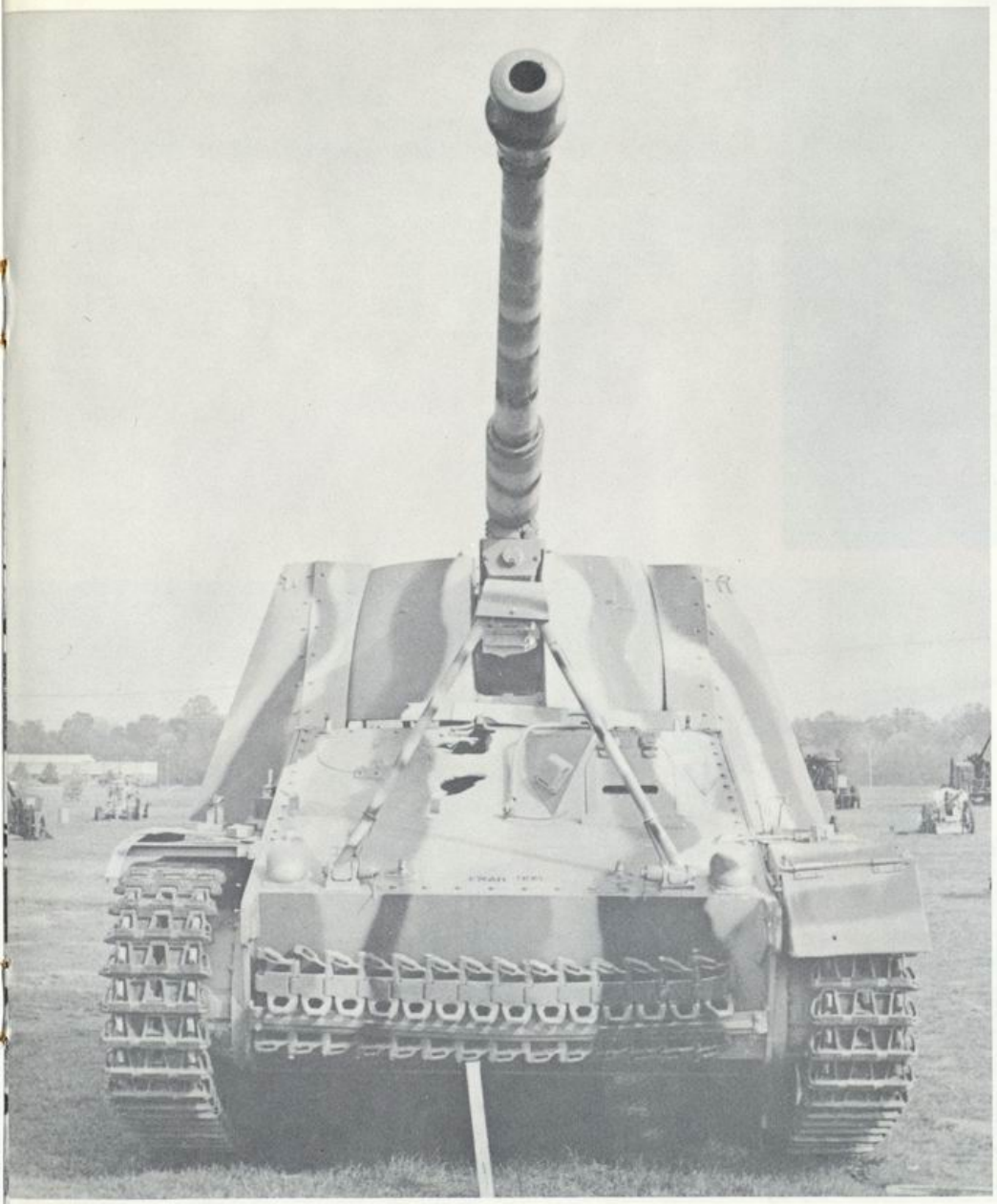
This winter scene shows two **"Marder 38's"** moving up past a Tiger I. Both of the Marders have their long barreled 75mm PaK 40 guns secured in their travel locks to prevent damage to the gun tubes.

Wrapped with a protective cover, the muzzle of this **Marder's** 75mm gun is protected from the elements, yet can fire if necessary. Note the rivets on the side of the Marder's built-up driver's compartment. The Czech chassis featured right hand drive.

(Right) "Nashorn" was very well received on the Eastern Front and despite her handicaps of weak armor protection and lack of numbers, she proved to be a popular vehicle with the troops.

(Below Left) Combat ready Panzergrenadiers catch a lift on this camouflaged **"Marder 38"** out of an assembly area on the Eastern Front in the early morning to begin a counterattack during the early summer of 1944.

In the main street of this small town these Sd. Kfz. 138 **"Marder 38's"** laager for the night on their trek to the front. A close look at the vehicles reveals the gun shielding of a lighter color than that of the guns or the vehicle chassis.



Panzerjäger

NASHORN

So effective was the 88-millimeter multi-purpose gun when used as an anti-tank weapon that the Germans took definite steps to mobilize the otherwise ungainly weapon. The introduction of the **"Marder"** vehicles allowed an adequate anti-tank defense up to around 2,000 yards with their 75mm and 76.2mm guns, but the 88mm anti-tank gun extended that defense another 1,000 yards to over 3,000 yards. This proved to be an astounding range on the featureless steppes where there were no natural obstacles to get in the way of these direct fire weapons.

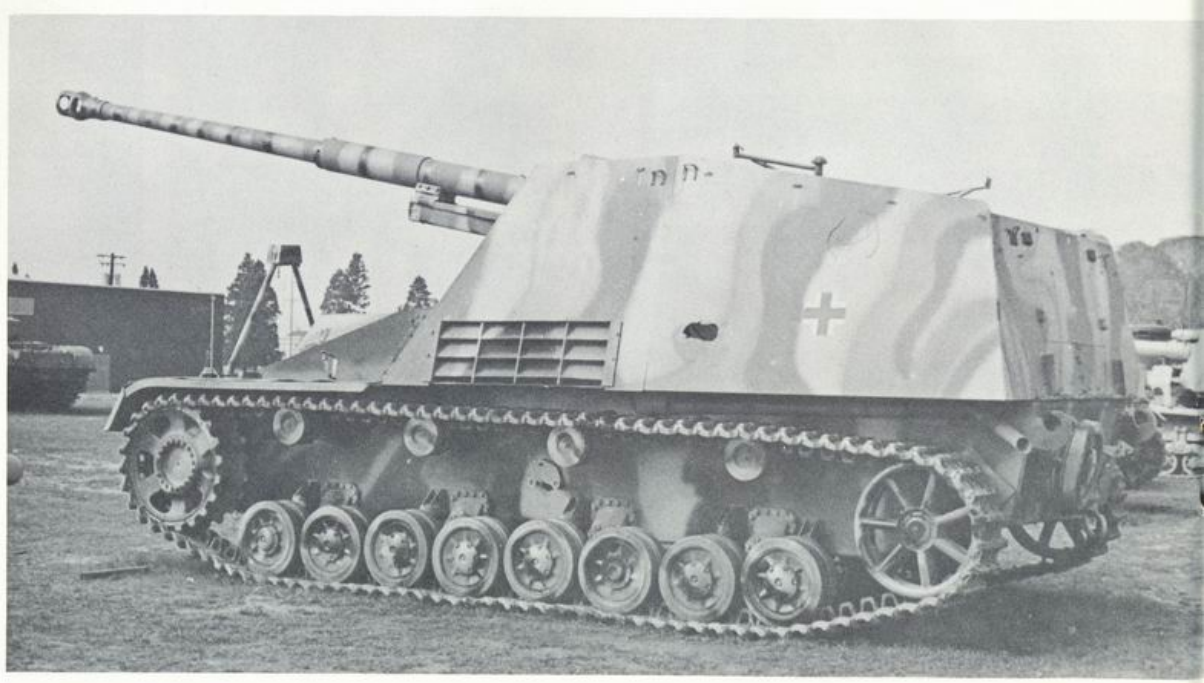
The "Nashorn" (Rhinoceros) grew as a by-product from the Sd. Kfz. 165 "Hummel", a self-propelled 150mm artillery piece. When it appeared that the Sd. Kfz. 165 would be successful in its trials, a new version of the 88mm gun, the PaK 43, was mounted in the Sd. Kfz. 165's fighting compartment.

The modification was successful, and the "Nashorn" was pressed into service as a heavy tank hunter on the Eastern Front. Mounted first on the chassis of the **Panzerkampfwagen IVF** and later the GWIII/IV, the "Nashorn" remained in service in the East well over a year before it began to be replaced by the deadly "Jagdpanther."

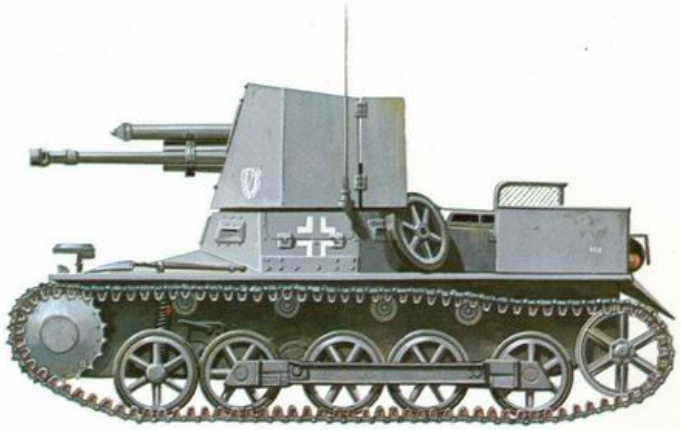
As an offensive weapon the Sd. Kfz. 164 was inadequate because of the vehicles light armor, but it proved to be superb in the defensive role and it's punch was lethal to the heaviest of Soviet armored vehicles. Over 400 of the vehicles were produced.

Many more action photographs of this vehicle can be seen in the Squadron/Signal publication, Armor Number 5, **Nashorn, Hummel, Brummbär in Action.**

NASHORN! The Sd. Kfz. 164 self-propelled carriage mounted an extremely accurate and deadly high velocity 88 millimeter anti-tank gun and was capable of delivering a killing blow to the largest of enemy armored vehicles.



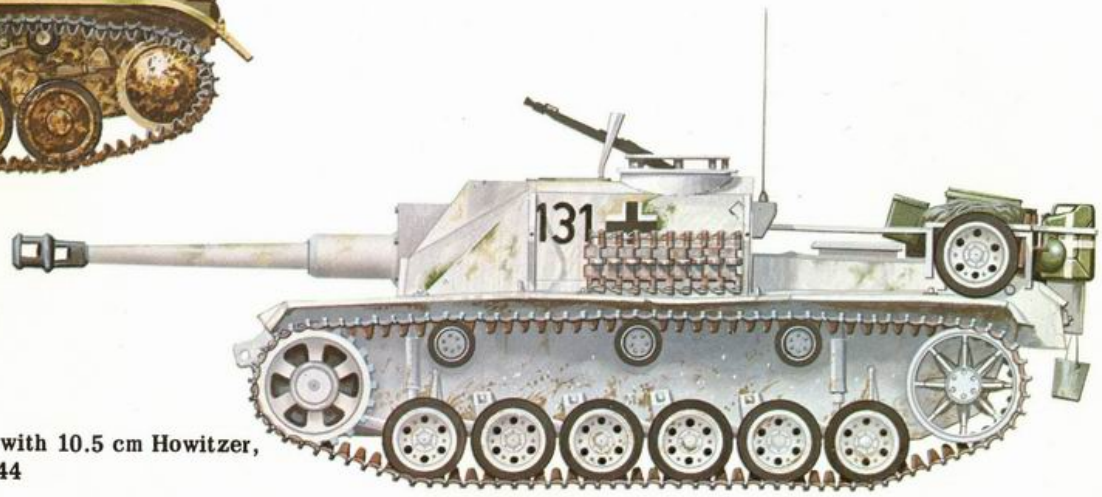
The **Panzerjäger** was built on the chassis of the Panzer IV (later the GW III/IV) and was an interim vehicle developed to add heavy anti-tank firepower until more effective purpose-built vehicles could be constructed and issued to German troops.



Panzerjager I 1st SS Panzer Korps,
France 1940

Sd. Kfz 139 Marder III
North Afrika, Summer 1942

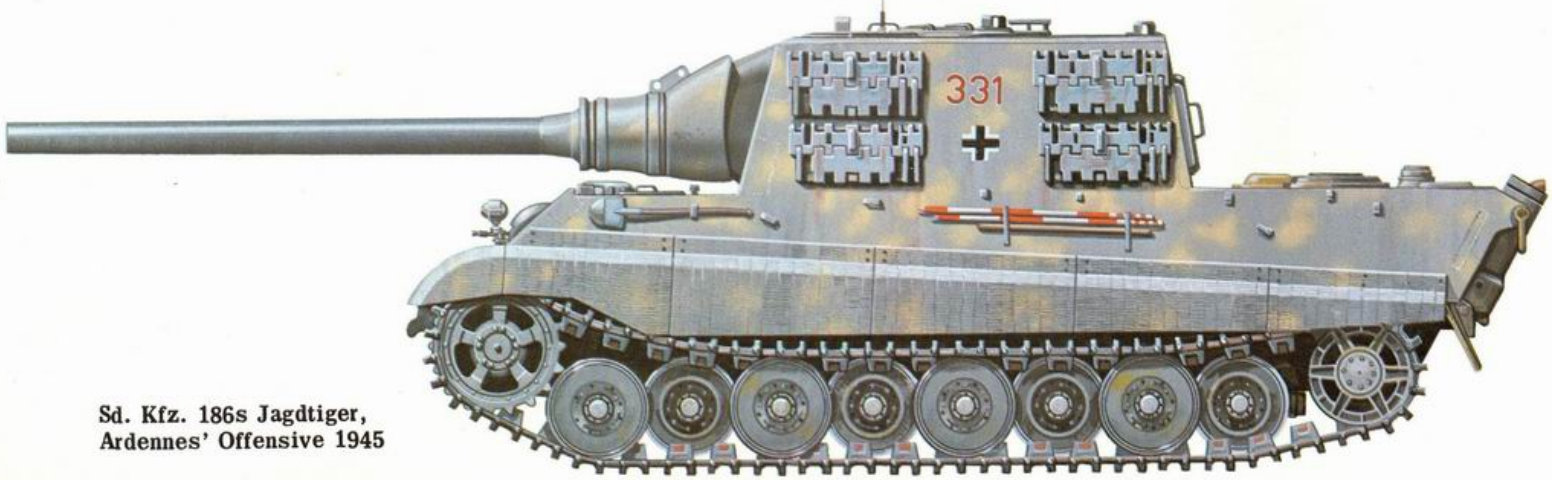
Sd. Kfz 131 Marder II
Russia Spring 1943



Sturmgeschutz III with 10.5 cm Howitzer,
Russia, Winter 1944

Sd. Kfz 162, Jadgpanzer IV
East front, Fall 1944

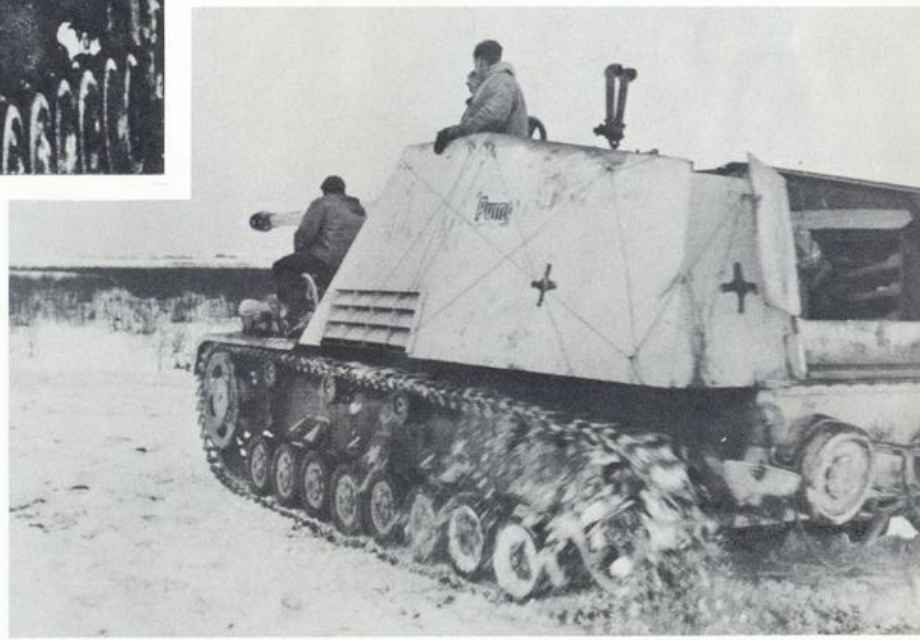
Sd. Kfz 173 Jagdpanther,
Germany, Spring 1945



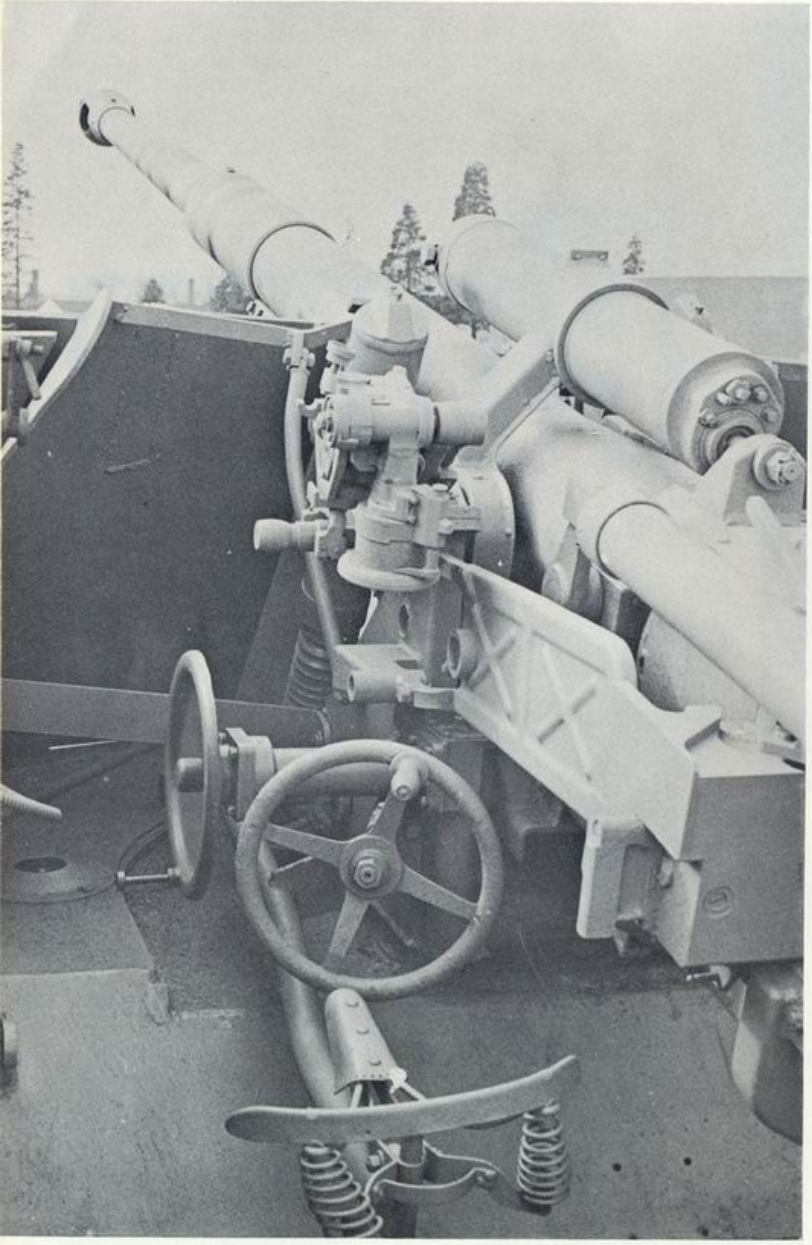
Sd. Kfz. 186s Jagdtiger,
Ardennes' Offensive 1945

Puma

A camouflaged **Panzerjäger** moves up to the front to give fire support. This vehicle carries a score card on her big gun's barrel showing eight Soviet tanks to her credit.

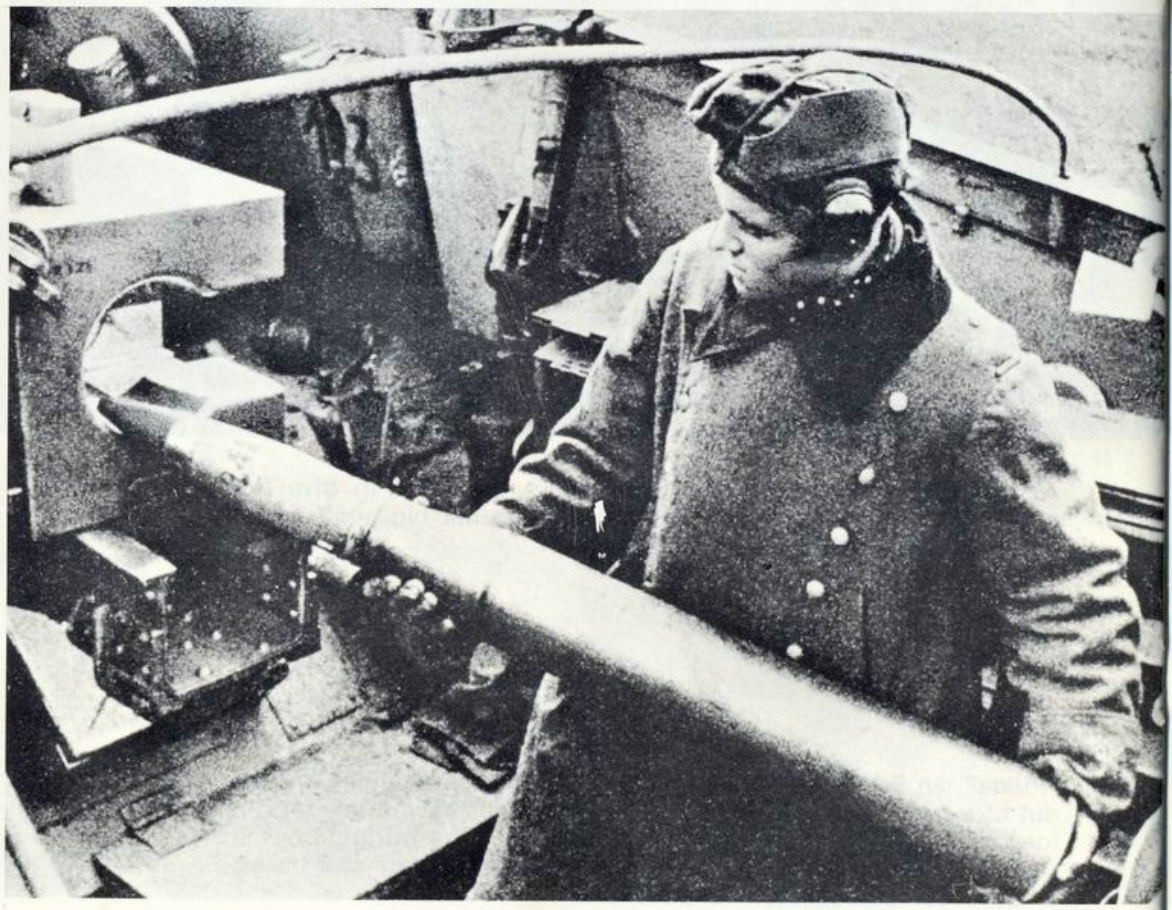


"Puma", an Sd. Kfz. 164 bearing winter camouflage paint, moves out of a supply area en route to the front after having taken on a load of fuel and 88-millimeter ammunition. The wiring on the fighting compartment sides is to hold down branches and leaves to be used to break up the outline of the vehicle.



A good view of the massive 88-millimeter PaK 43 anti-tank gun. The long rod of the automatic loading device is plainly visible in the photo, as are the gunlaying control wheels. The wheel facing to the left controlled elevation and depression of the barrel, while the wheel facing the gunlayer's seat controlled the azimuth, or side to side movement of the gun.

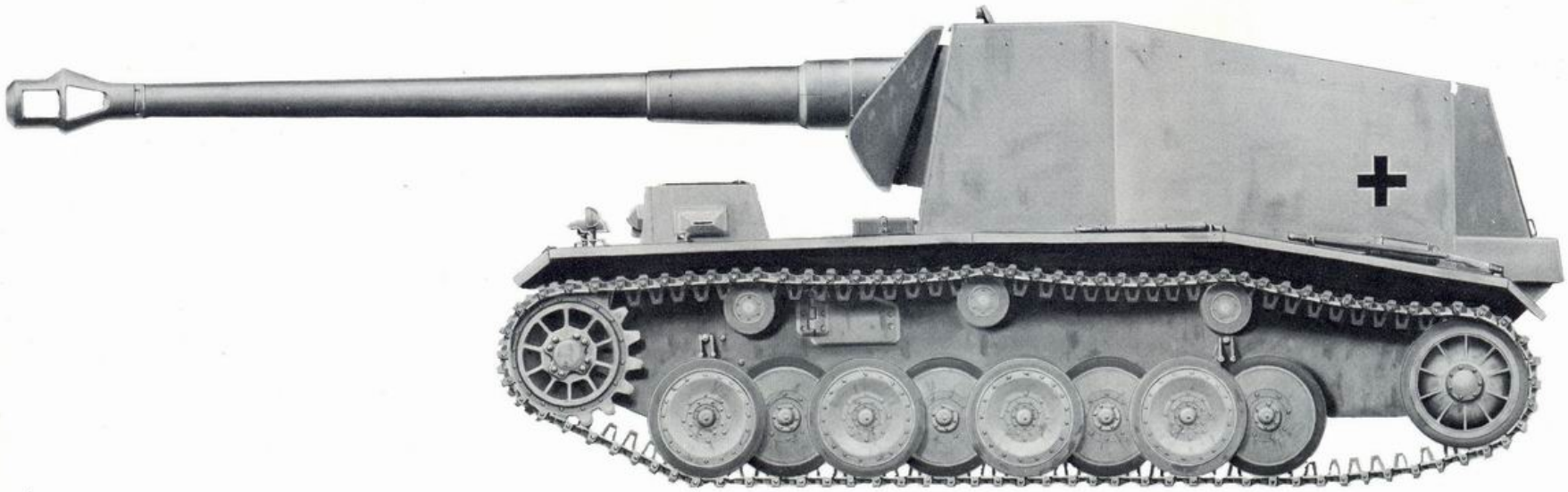
The loader holds the 34 lb. armor-piercing 88-millimeter projectile just prior to shoving it home into the gun's open breech. These projectiles could easily punch holes in any Allied tank. Up to 2000 meters away!



12.8 cm KANONE auf. Versuchsfahrgestell 3601

At the beginning of the war, the Wehrmacht began making plans for a second generation of battle tanks. Henschel worked on the development of a 30-40 ton tank to replace the **Panzer IV** and by 1942 was nearing the completion of four pre-production chassis for the vehicle. The chassis was designated VK 3001, standing for Versuchskraftfahrzeug (experimental vehicle), thirty-ton, type one.

The appearance of the heavy Soviet tanks on the Eastern Front made it necessary to develop further anti-tank vehicles that could support armored formations and defeat the large Soviet tanks. Consequently, Henschel modified two of the four experimental VK 3001 chassis to carry the model 1940 128mm anti-aircraft gun with special direct fire sights. Although the resultant vehicles were slow and heavy (36 tons), they were able to defeat the heaviest of Soviet armor in the defensive role and were used extensively in the East. Only the two vehicles mentioned were produced and few photos of the vehicles in action exist. The Wehrmacht considered the vehicles inexpendable, so every effort for the safety of the vehicles and their security was taken, regardless of the seriousness of the situation. Although neither of the two survived the war, the data that was gathered from the operational testing of the big 128mm guns went into the development of a more effective 128mm anti-tank gun which was installed in the heaviest of Germany's operational armored vehicles, the Jagdtiger.



Jagdpanzer HETZER

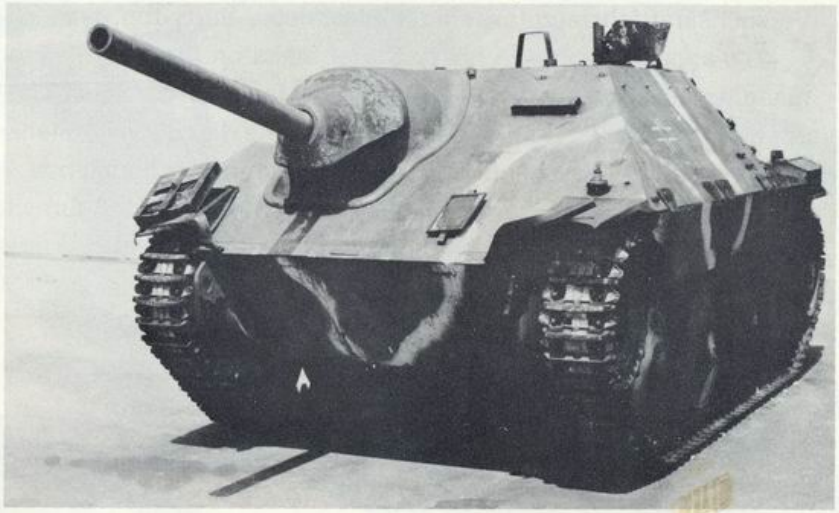
The anti-tank vehicles of the **"Marder"** series were built as interim measures until more specifically designed vehicles could take the field. The "Hetzer" was one of these.

Utilizing once again the chassis of the versatile Czech Panzer 38(t), the "Hetzer" was created by widening the tank's chassis for more room in the fighting compartment, adding a heavily armored superstructure that provided all around protection, and arming the vehicle with the high velocity PaK 39 75mm anti-tank gun.

Although the armor was adequate, and the 75mm gun highly effective, the low silhouette and large breech mechanism of the gun severely restricted the movements of this tiny vehicle's four-man crew.

The first **"Hetzers"** went into troop service in the spring of 1944 on the Eastern Front. After the Normandy invasion in June of 1944 a number were used on the newly opened Western Front. The Ardennes Offensive of late 1944 saw a large number of "Hetzers" transferred to the West, but the Soviet offensive of January 1945 caught the Germans on the East completely unaware, with more than two-thirds of the total number of operational "Hetzers" in the West.

Over 1500 of these vehicles were built, and the vehicle proved to be such a robust and effective one, that "Hetzers" saw first line service after the war with both the Czechoslovakian and Swiss armies under different designations.



One of Germany's more effective purpose-built vehicles was the **Jagdpanzer** (hunting tank) **"Hetzer"**, or "baiter". She mounted the very effective 75mm PaK 39 anti-tank gun, was small and compact, and presented a low silhouette to the enemy. The "Hetzer" went on serving with both the Czechoslovakian and Swiss armies after the war.

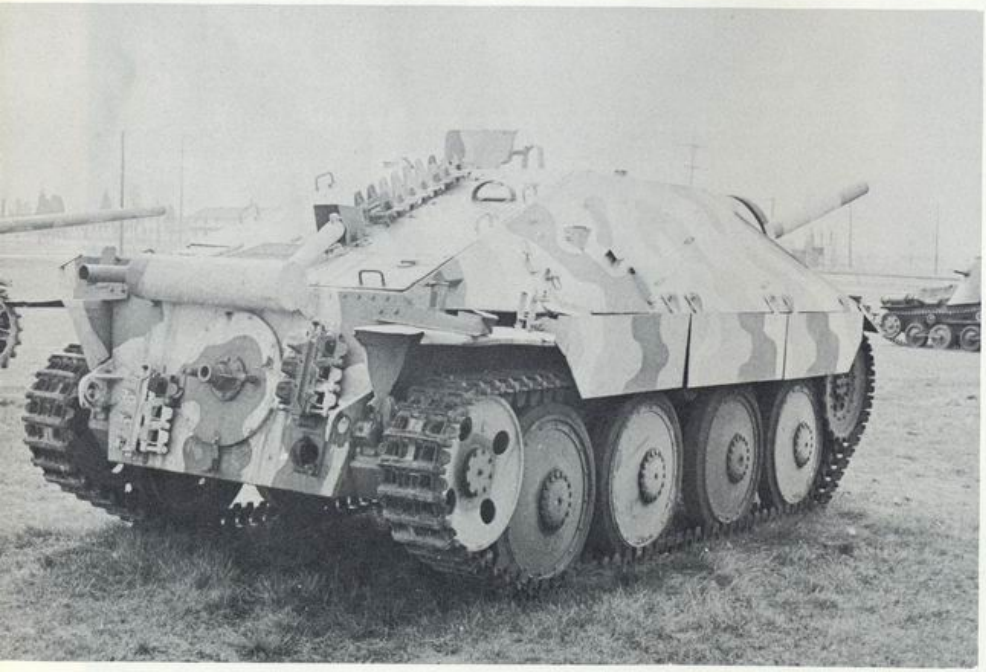
Jagdpanzer "Hetzer" of a Waffen-SS Panzerjäger unit is moving into a southern Russian Village, Summer 1943.

(Above Left) With her small size and low silhouette, the Jagdpanzer 38(t) could hide herself in wrecked buildings or small thickets. When enemy armored vehicles came within her gun's range, she would strike with devastating results.

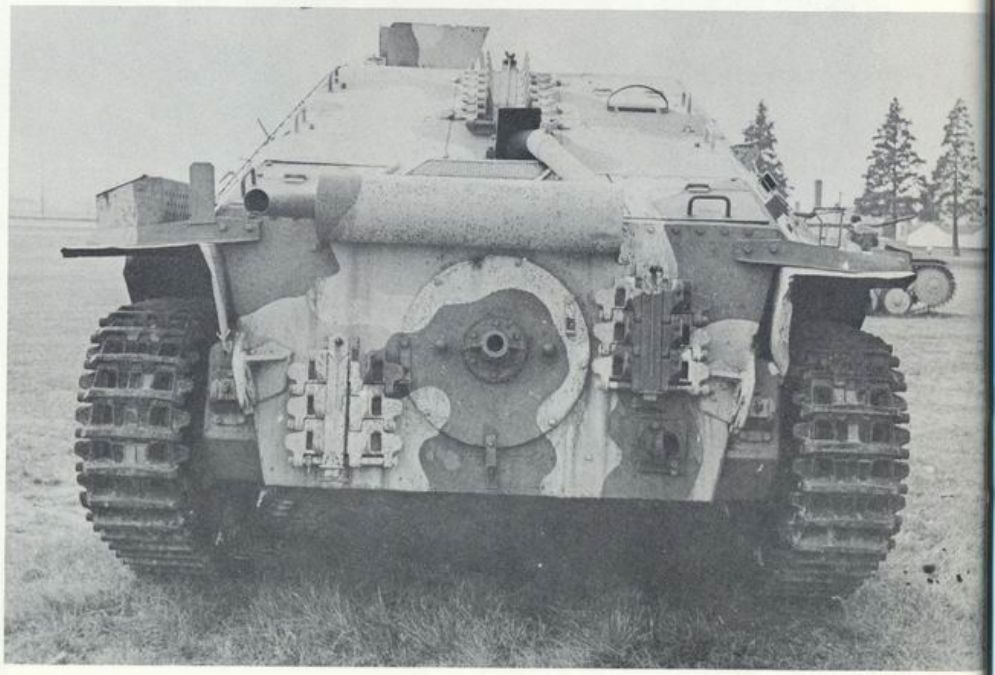
This **"Hetzer"**, followed by another, catches up with a supply column made up of mules and horses. The German armed forces relied on draft animals for a large portion of their supply effort all throughout the Second World War.

This gaudily painted **Jagdpanzer 38(t) "Hetzer"** today occupies a space at the Aberdeen Proving Grounds armor museum. The paint job she now bears is one that was added well after the war and although similar to some German camouflage patterns, it is by no means authentic.

Although the production of the **"Hetzer"** didn't begin until early 1944, the first vehicles reached operational units in May of the same year. Between then and the time the factories producing the "Hetzer" were overrun by Soviet troops, more than 1,500 "Hetzers" had been built and issued to the Wehrmacht.



This rear view of the **"Hetzer"** at Aberdeen shows the large circular plate that, when removed, gave access to the vehicle's engine for maintenance. Note the additional track stowage on the rear decking of the fighting compartment and the engine's rear plate.



STURMGESCHÜTZ III

The business end of a **Sturmgeschütz III, Ausführung G** with her very powerful 75mm PaK 39 L/48 anti-tank gun. On the left side of the top of the vehicle is the 7.92mm MG42 machine gun and its folding gun shield.

Built basically as an infantry support vehicle, the **Sturmgeschütz III** was time and again pressed into service as a tank destroyer in the final three years of the war.

Possessing a main armament of a 75mm PaK 39 L/48 or a 75mm Sturmkanone 40 L/48, that was capable of defeating armor at close or medium ranges, the StuG III became a real fireman, taking the place and performing the role of tank destroyer when none was available to do the job.

The Sd. Kfz. 142/1 was built as the G series in two separate versions. The first version, built between 1942 and 1943, featured a heavy bolted mantlet for the 75mm gun. The bolted mantlet was changed in the second version and a new heavy cast mantlet took its place. This new mantlet was of such a distinctive shape that it was given the nickname "Saukopf", or boar's head.

The Sd. Kfz. 142/1 saw anti-tank service in Italy, France, and on the Eastern Front between 1943 and the end of the war. Over 9,000 vehicles of the StuG III designation were produced up until the end of World War II.

With a platoon of Infantry mounted on top, this **Sturmgeschütz III** Ausf. E, is moving at its top speed into Russia, July 1941. Armed with a short 75mm Sturmkanone, the gun had a crew of four men and weighed 22 tons.

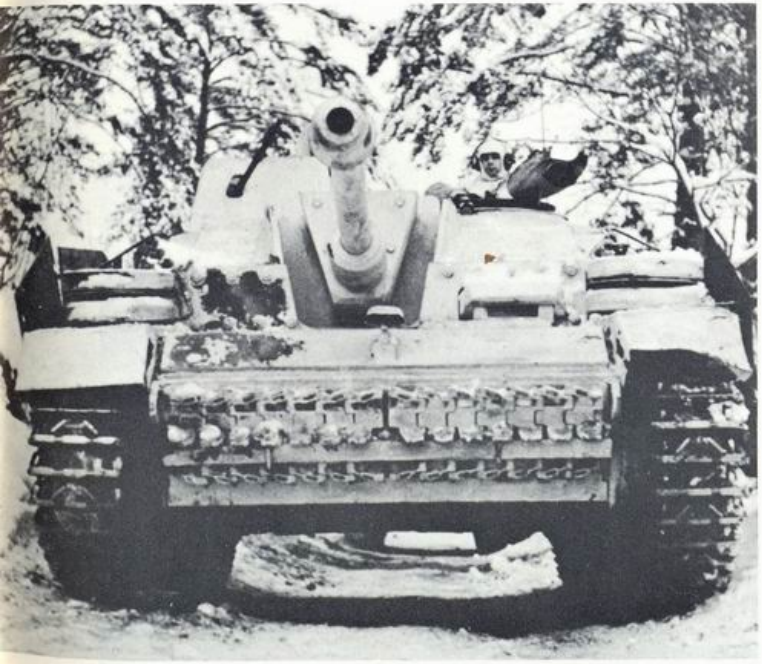
(Below Left) A **Sturmgeschütz** in the assault role. This vehicle, one of the F series, was the first to receive the KwK 40 anti-tank gun. Some of the first vehicles fitted out with this gun carried no muzzle brakes, but they later became standard on the rest of the vehicles of the F series, and continued being fitted to vehicles of the G series.

This camouflaged **StuG III** carries a squad of Rumanian infantrymen to an assembly point prior to a German counter-attack. The crisscross effect on the front of the vehicle is Zimmerit, a cement paste covering the vehicle sides and front to deny the enemy the ability to place magnetic anti-tank mines on the vehicle.

Panzergrenadiere of the SS - Division "Götz von Berlichingen" mounted on a Sturmgeschütz III G during a counter attack on the Eastern Front. Winter, 1943.

(Below Right) A disabled **Sturmgeschütz III** of the Sturmgeschützabteilung 177 is recovered by a fellow **Stu.G III** during heavy fighting around Barbukin (near Stalingrad), January 1943.

Through this snow-covered forest track rumbles a **Sturmgeschütz III, Ausführung G.** Originally based on the chassis of the **Panzerkampfwagen III,** the StuG. vehicles proved to be excellent assault vehicles and over 9,000 of this type were built during the course of the war.



This Sd. Kfz. 142/1 with bracing on either side of the vehicle for the side skirts, or Schürtzen, which are not mounted. Note the extra tracks carried on the side for additional armor protection.

(Right) **Sturmgeschütz IV** during evaluations in Sicily. Sitting behind the open commander's hatch is Feldmarschall Albert Kesselring, Oberbefehlshaber (CIC) der Heeresgruppe C. The StuG IV had a 75mm Stu.K 40 L/48 and weighed 23 tons.

This late-model **StuG III** moves down a road toward forward positions. This vehicle has been fitted with the heavy cast "Saukopf", or "boar's head" gun mantlet which provided more protection for the gun by offering less shot traps than the earlier slab-sided mantlet. This assault vehicle carries the "Schürtzen" on either side. These side skirts protected the flat sides of the chassis from direct hits from shaped charge projectiles which would explode prematurely when striking the side skirts.

The Aberdeen Proving Ground armor museum has a **Sturmgeschütz III, Ausführung G** in its collection of armored vehicles, as is shown here. This vehicle, although almost thirty years old, is in a relatively good state of repair. The vehicle parked beside the Sturmgeschütz is an Sd. Kfz. 131 Marder II tank destroyer, also covered in this book.

JAGDPANZER IV

The **Jagdpanzer IV** (Panzerjäger 39) was the result of three years of tank versus tank combat experience. Incorporating all of the very expensive lessons learned with regard to armor protection and firepower, the Jagdpanzer IV featured a very low profile, exceedingly sloped and heavy armor, and was armed with a 75mm PaK 39 L/48 anti-tank gun (the same gun used in the "Hetzer" and the StuG III).

This tank destroyer was based on the chassis of the Panzer IV and could basically be called an enlarged and much improved (in design) version of the **StuG III.** She saw her first action in late 1943 on the Eastern Front. This vehicle was well received by the crews that manned her, and by the middle of 1944 enough lessons had been learned to incorporate them on the vehicle, but the resultant tank destroyer received a new designation, even though she carried the same Sd. Kfz. 162 number.

She was now called the **Panzerjäger IV/70** because of a major change in armament. Although the new weapon was still a 75mm gun, the barrel length had been increased from its L/48 length (75mm X 48, or 3.60 meters) to a new L/70 length (75mm X 70, or 5.25 meters). This gun was capable of throwing a 75mm projectile at an extremely high velocity over a long range. Other major changes in the vehicle were made in the slope and shape of her armored superstructure, and the addition of "Schürtzen", armored skirts that protected much of the vehicle's sides and trackwork.

Somewhere in the neighborhood of 1,500 of these vehicles were produced before the end of the war and they saw service in Italy, France, the Lowlands, the Eastern Front, and finally, Germany.

The **Jagdpanzer IV** in this photograph mounts the same 75mm PaK anti-tank gun that was fitted in the "Hetzer". This was the first of the Jagdpanzer IV variants and it incorporated most of the lessons learned about sloped armor after four long years of costly war.

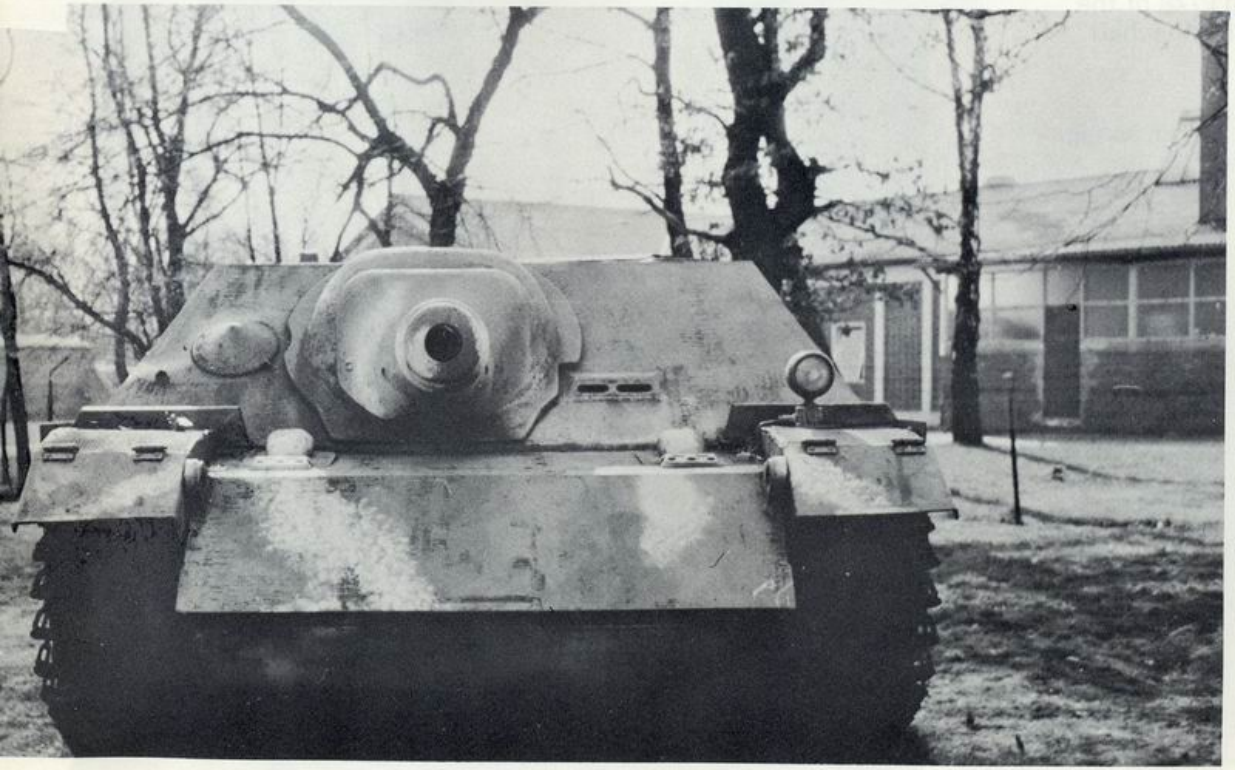
A **Jagdpanzer IV** (**Panzerjäger 39**) with the 75mm PaK 39 L/48 gun and heavy foliage camouflage returns from the frontlines bearing the crew of another vehicle. The crew member seated on the mantlet of the gun wears the green jacket and insignia of Sturmgeschütz and armored artillery troops.

(Below Right) An Sd. Kfz. 162 of an anti-tank unit of the 116 Panzer-Division, 228 Panzerjäger-Abteilung moves past two Opel "Blitz" supply trucks on their way to the front. One rather interesting point in this photo is the fact that the Jagdpanzer crew has opened the two small ports below the front plate of the fighting compartment that served as the air intakes and inspection hatches for the front steering brakes to allow for additional cooling.

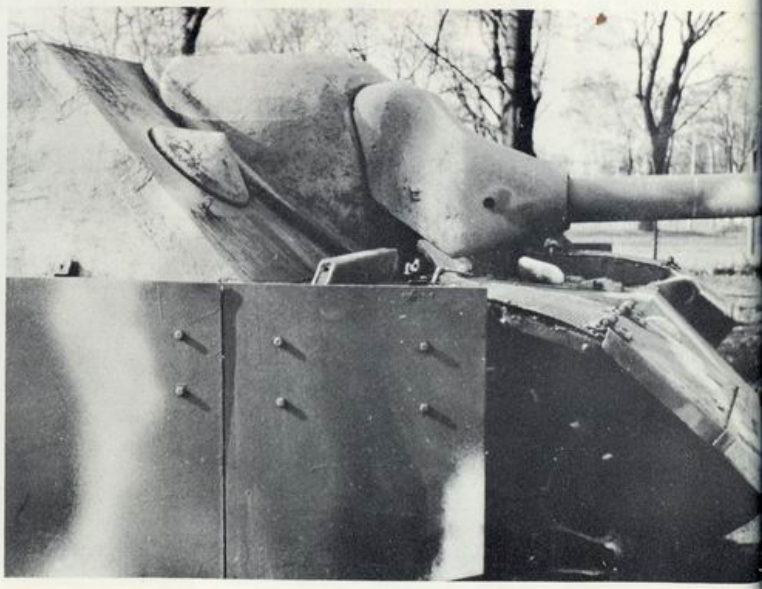
The **Jagdpanzer IV** was armed with the 7.5cm Stu.K. 40 L/48 of the "Sturmgeschütz IV". A crew of 5 men made up the "Mannschaft" of this 23 ton Panzerjäger, Normandy July 1944.

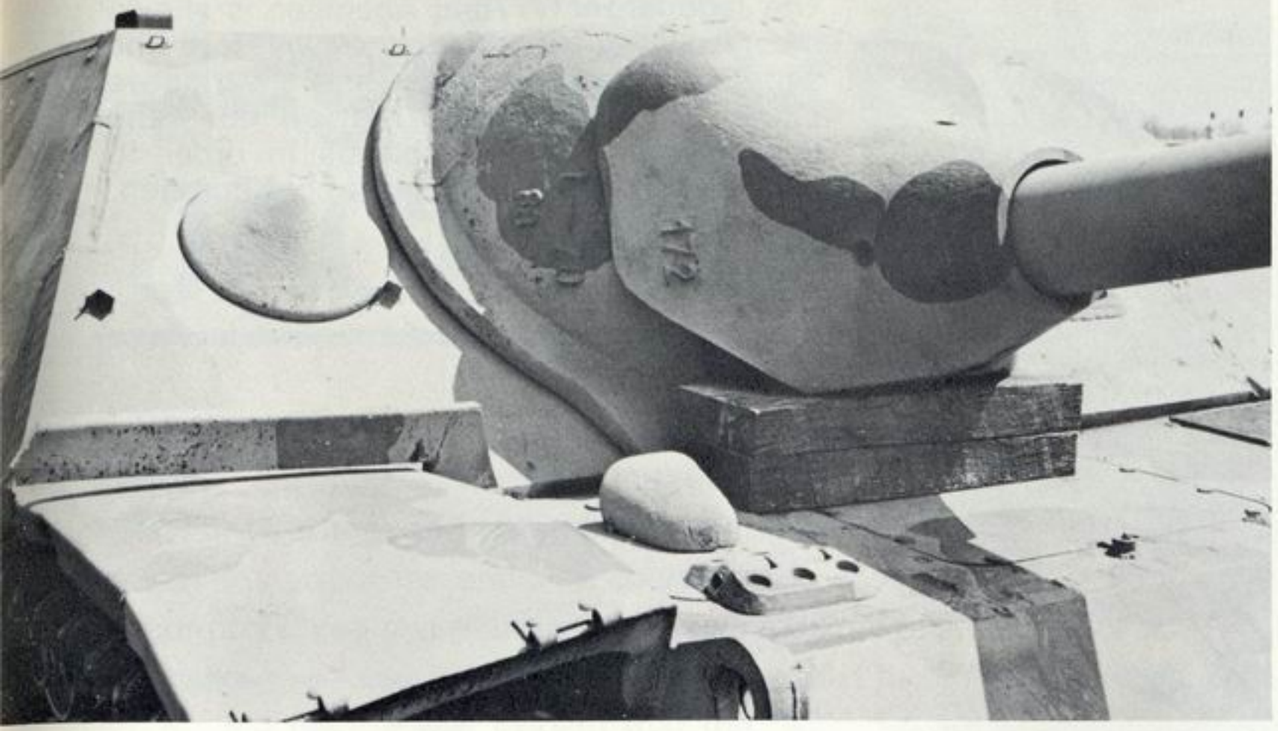
This photo shows to advantage the sloped armor and the heavy cast metal "Saukopf" gun mantlet that also characterized the **Hetzer** and the **Sturmgeschütz III.** All three vehicles were at one time or another fitted with the same type of anti-tank gun, the 75mm PaK 39.

A front view of the Sd. Kfz. 162, showing the vehicle's very low profile, its 75mm gun and the heavy, sloped armor. A close look will reveal that the last vestiges of a coat of "Zimmerit" cement paste applied some 29 years ago still remain.



Here is another view of a **Jagdpanzer IV** with the L/48 gun; this one fitted with a muzzle brake. The vehicle shown here weighed a bit more than 24 tons and is on display today at a German Army training center in West Germany. The driver's vision slits are visible to the right of the gun mantlet.

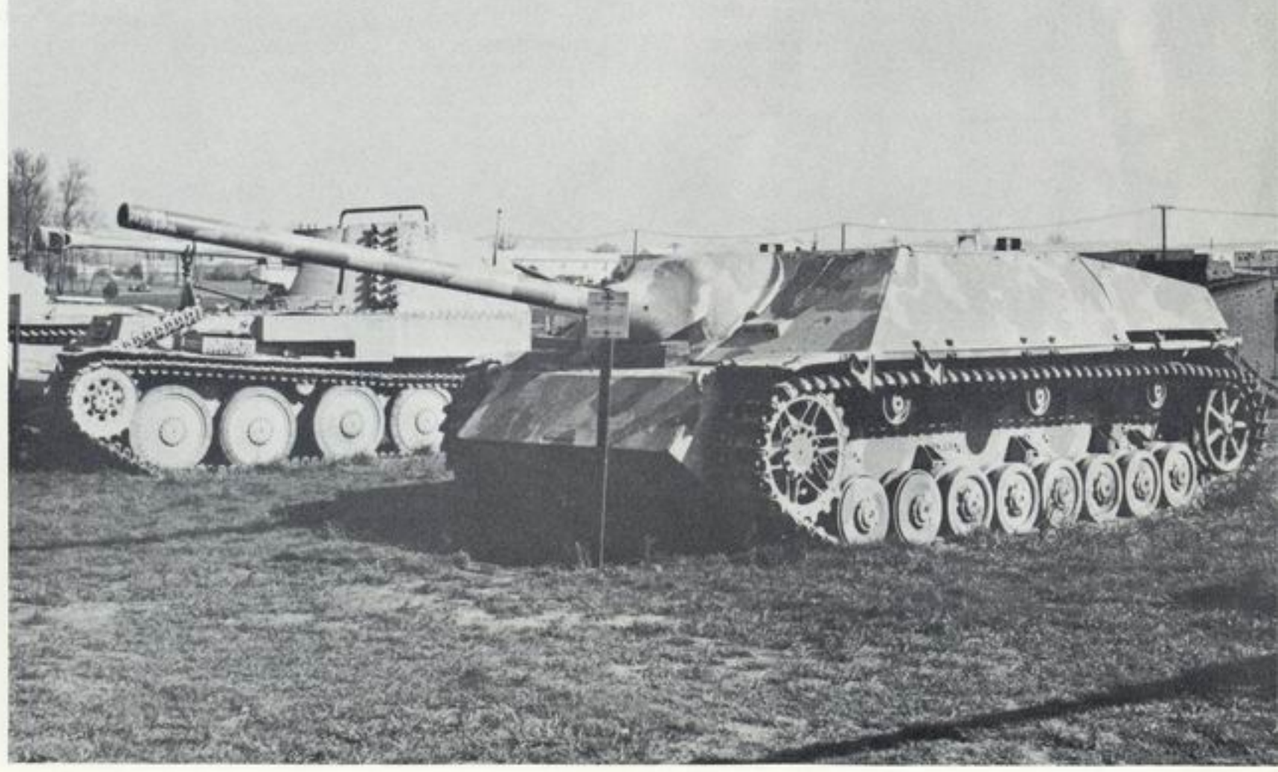




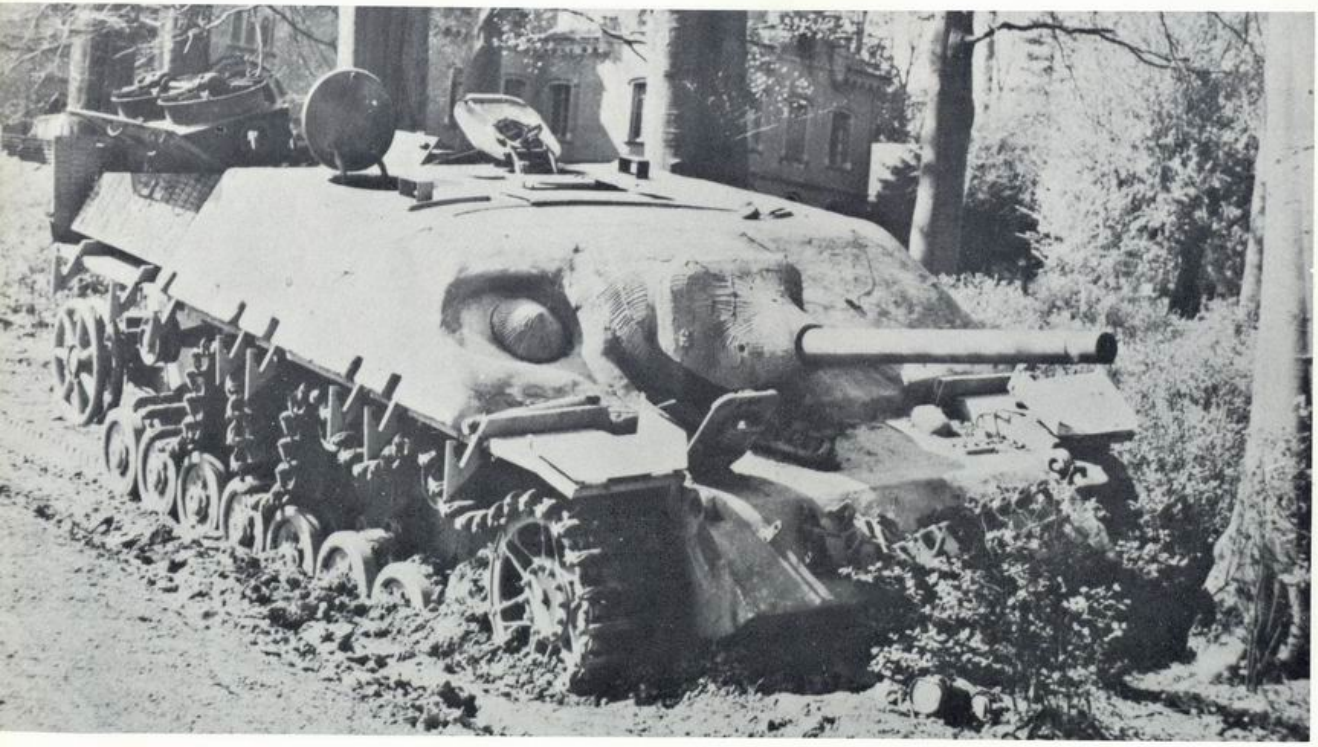
A closer look at the front of the **L/70** armed **Jagdpanzer** shows the relative thickness of the armor and the very good ballistic shape of the vehicle's "Saukopf" gun mantlet. An armor-piercing round hitting the mantlet would most normally slide right off, not damaging the gun unless luck played a big role in the enemy gunner's timing.

(Below Left) Here is a comparitive front view of the later model **Jagdpanzer IV,** also called the **Panzer IV/70.** The vehicle was called IV/70 because of the armament with which she was fitted — the 75mm Sturmkanone 42 L/70. The additional weight of the long barreled gun caused some problems with the front suspension of the vehicle that was later solved by the substitution of steel-tired bogey wheels on the first two torsion bar axles for the earlier rubber tired bogeys.

A close look at the first two bogey wheels on this **Jagdpanzer IV/70** shows the steel tires that were put on to keep the front suspension from being damaged as a result of the additional weight, shift in center of gravity, and excessive overhang of the L/70 gun. The rest of the bogeys on either side were rubber rimmed.



The **Jagdpanzer IV/70** at Aberdeen is shown here in three-quarter rear view. Note the simplicity of construction and the relative speed in the modification of the Panzerkampfwagen IV chassis in order to convert it into the Jagdpanzer configuration.



Knocked out by an Allied anti-tank gun near Mons, Belgium 1945, this **"Jagdpanzer IV"** is left by its crew. The motor covers holding the two cooling vents are open an well as the loader's and commander's escape hatch. The cone shaped cover on the right side of the gun mantlet could be pushed out from within in order to fire a MG for self defense. The front of the Jgdpz. IV consisted of 80mm steel plates reinforced by additional spare tracks.

Jagdpanzer V JAGDPANTER

As any new vehicle enters operational service, its faults become apparent. This was the case with the Sd. Kfz. **164 "Nashorn".** Although her big 88mm gun gave her the capability to defeat any armor her enemies could put up against her, the light armor protection she afforded her crew made her inadequate for an offensive role, and only barely adequate for the defense.

By late 1943, it was evident that the **"Nashorn"** would have to be replaced soon by a more capable vehicle. The **Panzer V "Panther"** was by then in full production so an 88mm gun was fitted to the "Panther" chassis to test its worth. New thicker armor was bolted and welded around the 88mm gun, and the combination of the 88mm gun and the "Panther" chassis made the vehicle a winner right from the start.

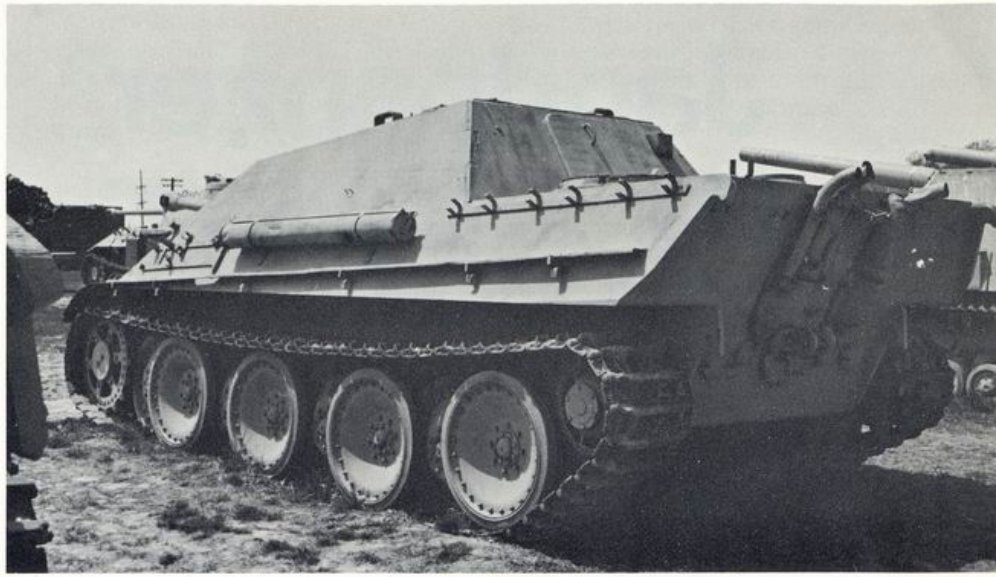
Production of the **"Jagdpanther"** began in December of 1943 and some 340 vehicles were built before the war ended. In action, the "Jagdpanther" was a real tank killer. Her firepower and heavy, sloped armor made her a very popular vehicle with the crews who served in her and she stayed in operational use until the final shots were fired.

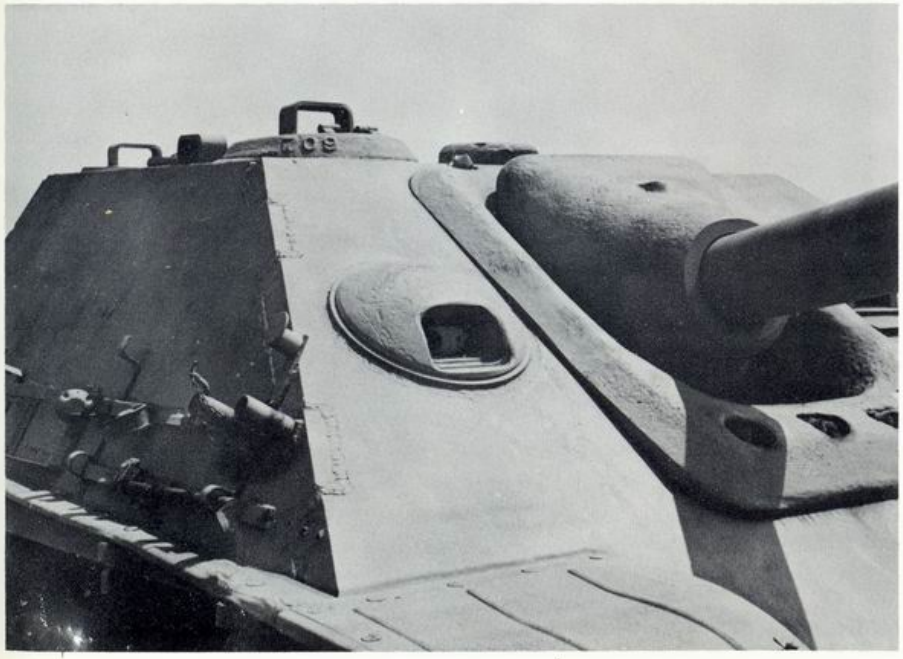
The **Panzerjäger "Panther",** also known as the "Jagdpanther", mounted the highly destructive 88 millimeter PaK 43 anti-tank gun and proved to be one of the best anti-tank vehicles to come out of the Second World War.

In this view an Sd. Kfz. 173s **"Jagdpanther"** bearing side skirts and a full load of on-vehicle equipment moves up to a position in the hedgerow country of Northern France. These vehicles were based on the chassis of the PzKpfw. V "Panther" and were produced from December of 1943 until the end of the war.

(Above Right) This **"Jagdpanther"** traverses from the thick underbrush in the background to sandy soil as it advances up a hillside. Note the small collar that surrounds the mantlet of the 88 millimeter gun, holding it into the yoke on the inside of the vehicle's fighting compartment.

The crew of this **"Jagdpanther"** pick up debris from around their vehicle during a break between actions. Almost out of sight on the left side of the photo is a pile of 88 millimeter ammunition canisters that have been left after the crew loaded the shells into the vehicle.





The low profile of the **"Jagdpanther"** is shown to advantage in this photograph. The cylinder mounted on the side of the fighting compartment of the vehicle contained equipment to be used in the cleaning of the tube of the 88mm PaK 43/3 L/71.

(Above Left) This **Sd. Kfz.** 173 is on display at the Aberdeen Proving Grounds in Maryland. Her sloped armor, heavy gun, and rugged torsion bar suspension contributed concepts in the design of armored fighting vehicles that are being applied in today's modern armored vehicles.

The armored fighting compartment of the **"Jagdpanther".** Notice the manner in which the front and side plates of the fighting compartment are joined. The sponson for the vehicle's machine gun is very obvious here, as are the racks on the side for the stowage of on-vehicle equipment. Despite all of the Jagdpanther's good points and tremendous capabilities, less than 350 of them were produced between December of 1943 and the end of the war.

Jagdpanzer ELEFANT

The front view of the **Sd. Kfz. 184** reveals her huge bulk, high silhouette and long 88 millimeter PaK 43 cannon. The vehicle weighed over 71 tons and featured an engine for each tread and a sophisticated and complex electric transmission.

The **Jagdpanzer "Elefant"** had a strange history. Known originally as the **Panzerjäger Tiger** (Porsche) and later by the nickname of Ferdinand, this vehicle was at one time to have been a competitor for the position of Germany's heavy main battle tank. When both Henschel and Porsche were working on prototype Tiger tanks, the Wehrmacht awarded Porsche a contract for a number of the vehicles. When competitive trials proved that the **Henschel Tiger** was clearly the better of the two vehicles, Porsche's production was allowed to lag while the major contract (and many of the necessary materials) was given to Henschel.

The Porsche vehicle first saw combat during the German Operation "Zitadelle" at Kursk in the Soviet Union in July of 1943. Two heavy batallions of **"Elefants"** tore huge holes in the Soviet defensive lines with their impressive bulk and 88 millimeter guns, but after they were through the holes that they had made, surviving Soviet troops closed in on the vehicles from all angles and decimated the German vehicles with grenades, "Molotovcocktails" and anti-tank mines. The Elefants carried no secondary machine gun armament and literally had to sharpshoot individual soldiers with their big guns in order to back out of the trap.

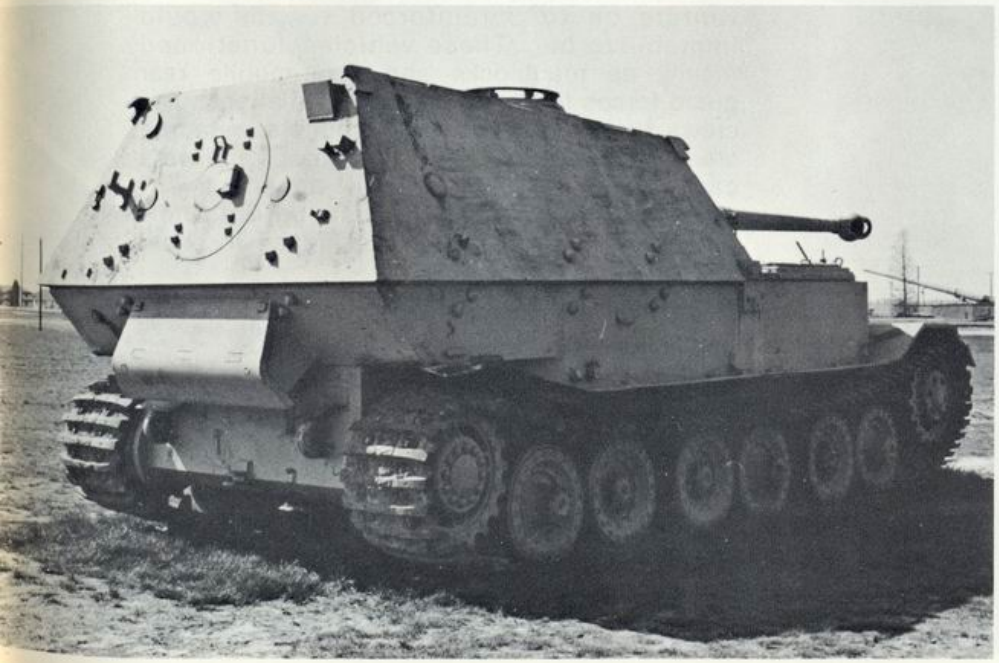
After the Kursk action, most "Elefants" were refitted with bow machine guns to prevent the Kursk mistake from happening again.

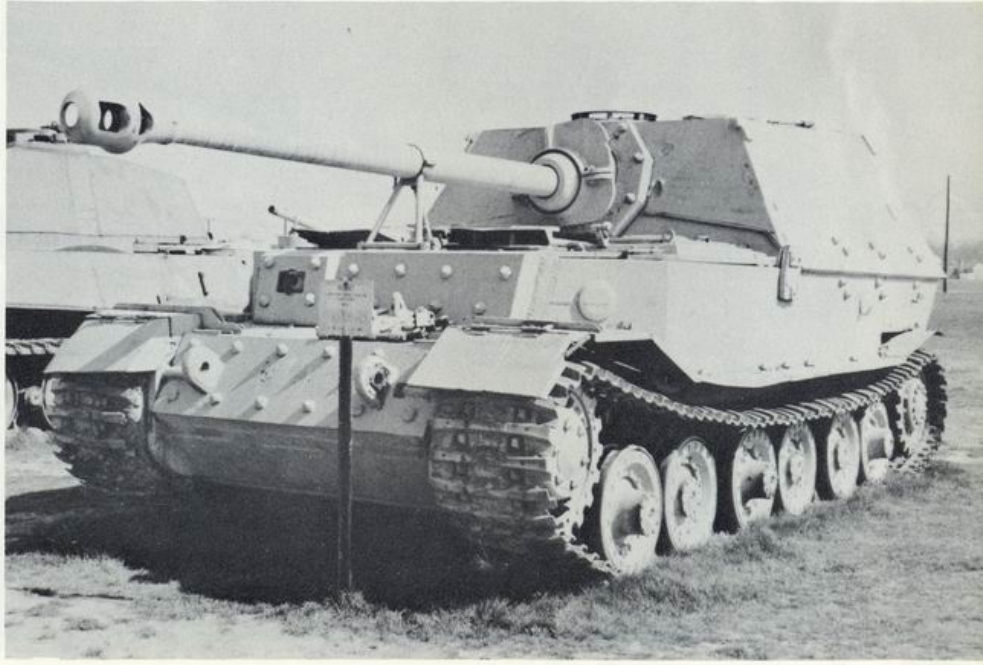
These 71 ton monsters saw service both on the Eastern Front and during the Italian campaign where, despite their bulk and slowness, they proved effective as semi-mobile defensive pillboxes. One of the major disadvantages of the vehicle was its complexity. It was powered by two big Maybach 65 h.p. gasoline engines — one for each tread, and had large generators fitted to provide current for the Porsche-designed electric transmissions. Unless major repair facilities were nearby, an Elefant with an engine or transmission problem had to be abandoned to the enemy. It was at one time during the Italian campaign said that the best way to put an "Elefant" out of action was to have it tow an "Elefant" that was out of action.

This **"Elefant"** was knocked out by the destruction of its running gear, as the blown away set of front bogey wheels indicates. Since the bow machine gun had only limited traverse and the main gun was fixed and could not rotate, the Elefant was easily approached from the sides or rear.

(Below Left) One of the novel features of the **"Elefant"** was the circular crew escape and entry hatch at the rear of the vehicle. The smaller circular plate in the middle of the hatch was used to evacuate spent 88 millimeter shell casings by pushing them through the open plate without exposing the crewmembers to any real danger. It should be evident in this photo how an enemy infantryman could approach the Elefant from the sides or rear with little danger of being seen or shot at.

The Sd. Kfz. 184 heavy tank destroyer has a long and interesting history, even though few vehicles were produced. During her operational career she was known variously as the **"Porsche Tiger", "Elefant",** and **"Ferdinand".** This late version of the vehicle is now stored at the Aberdeen Proving Grounds.



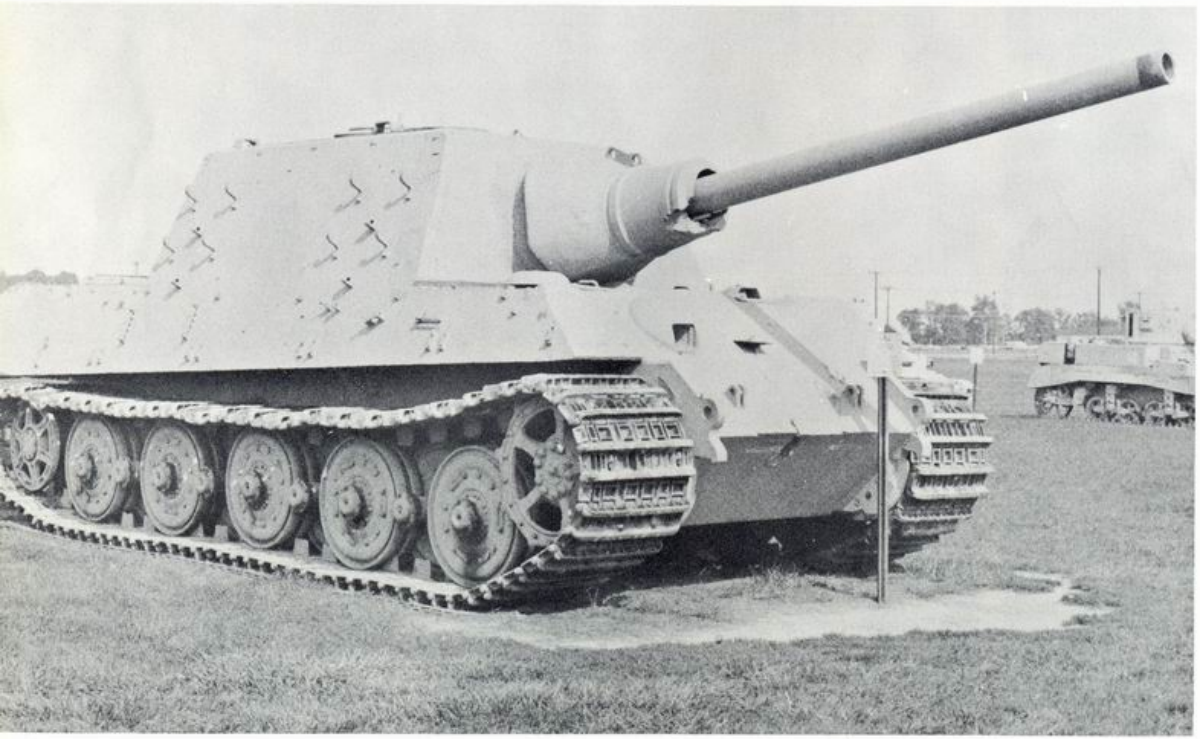


JAGDTIGER

The **"Jagdtiger"** was Germany's biggest operational armored vehicle weighing 76 tons. This monster had frontal armor so thick that no tank weapon the Allies had could penetrate it.

The Sd. Kfz. 186 was built on two slightly different chassis — one by Henschel and one by Porsche. The major recognition feature between the two chassis was the shape of the bogey wheels and the number of torsion bars on either vehicle. The Henschel version carried nine sets of bogeys on either side, while the Porsche version had eight.

Either version of the **Jagdtiger** carried the awesome 128mm PaK 44 L/55 anti-tank gun, a descendent of the 128mm Flak. Although a contract for 150 vehicles was issued late in the war, only fifty or so were built. Many participated in the last-ditch Ardennes Offensive and their major weak point showed to be a result of one of her strong points. Her armor provided her with the best possible protection against man-made enemies, but that same heavy armor protection weighed so much that she was incapable of traveling on any but the best of roads and bridges. Her top speed on the good roads was restricted to about seven miles per hour, and she was so heavy that any venture on to unreinforced terrain would immobilize her. These vehicles functioned mainly as roadblocks and semi-mobile rear guard forces for larger German formations. The crews that manned these Jagdtigers were the cream of the German SS Panzer troops and were capable of delaying Allied advances for considerable periods of time before their vehicles would have to be abandoned to sheer weight of numbers.

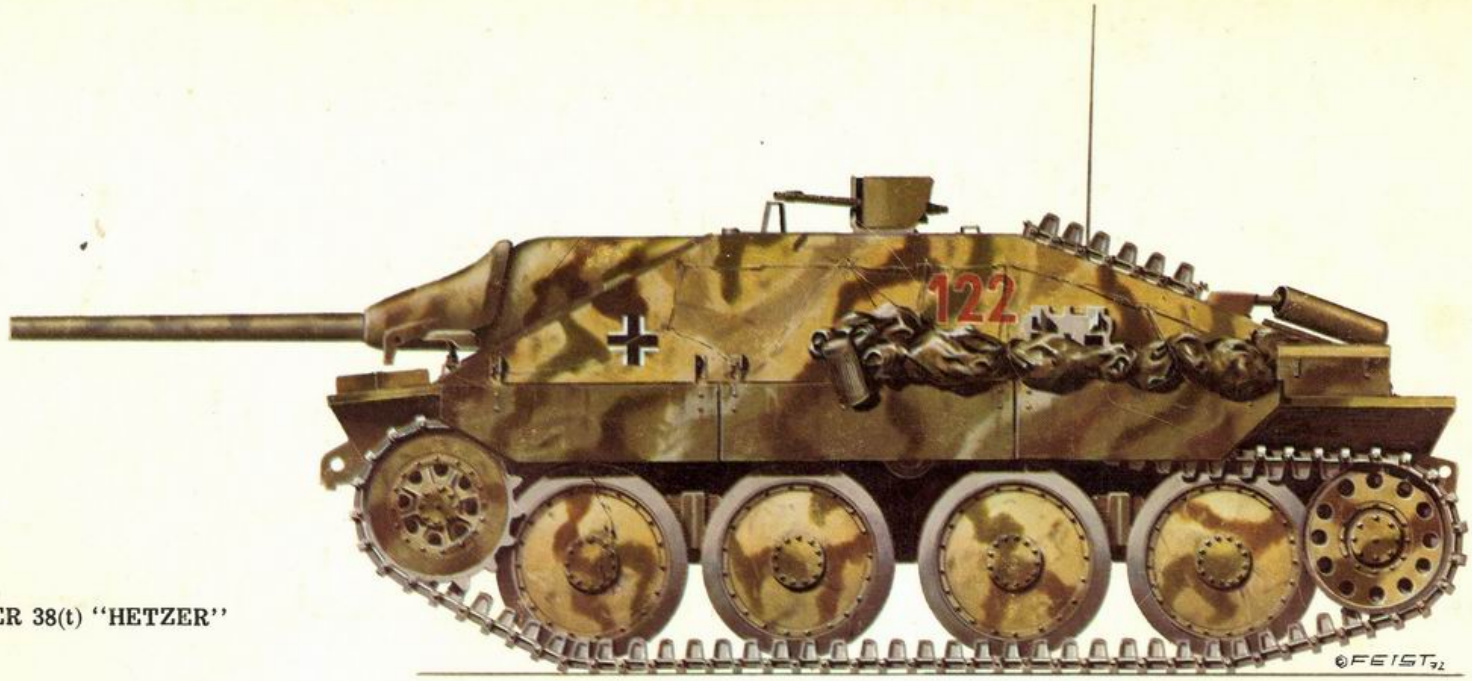


Weighing over seventy-six tons in combat order, the **"Jagdtiger"** was the heaviest armored fighting vehicle to see German operational service. Her huge 128 millimeter anti-tank gun could penetrate the armor of any tank in the world at the time.

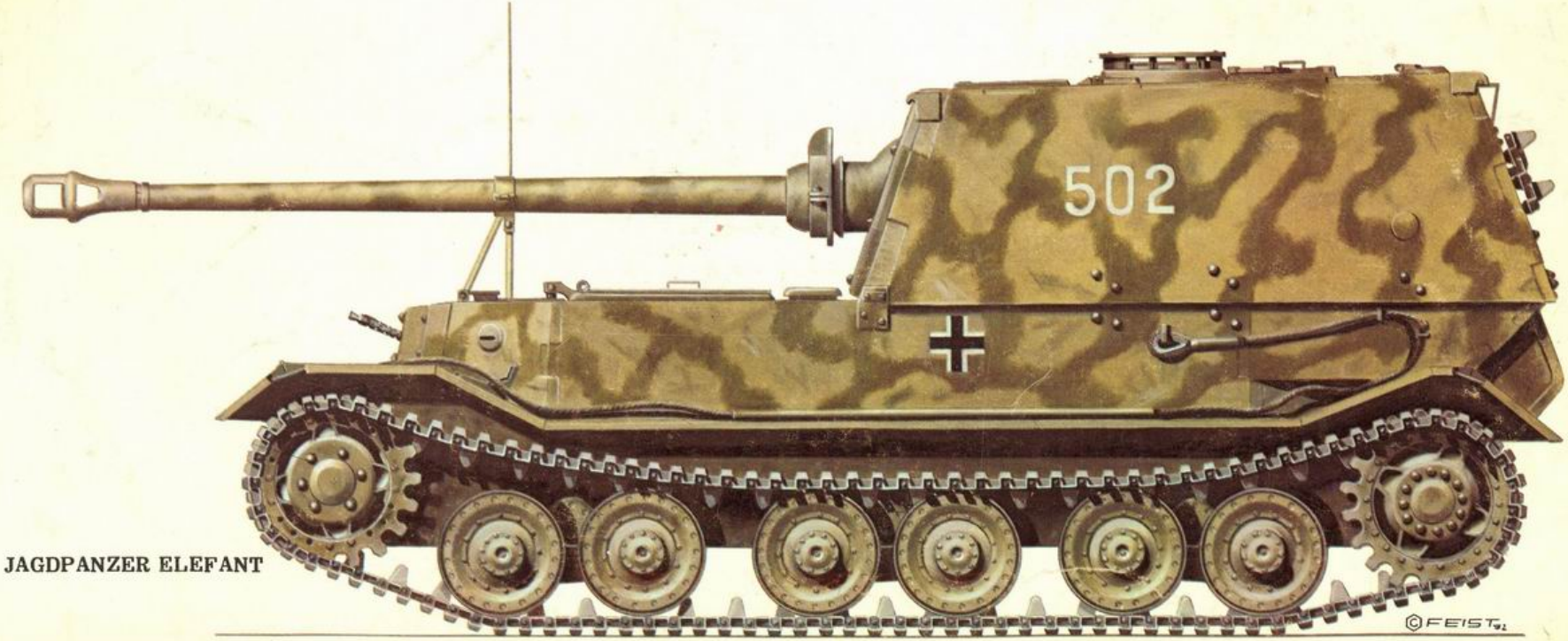
Taking part in the Ardennes Offensive of late 1944, these vehicles helped to decimate the American 106th infantry division in their defensive positions in Luxembourg and Belgium. The **Jagdtiger's** huge weight and slow speed restricted their mobility considerably as they were limited to traveling on only the strongest roads and bridges.

(Below Left) The 128mm PaK 44 L/55 anti-tank gun arming the **"Jagdtiger"** was a direct descendent of the 128mm anti-tank gun that was used on the chassis of the 128mm anti-aircraft gun that was such a success before it was mounted on vehicles. The gun threw a projectile that weighed more than 100lbs. and proved to be the best anti-tank guns developed by the Germans.

The massive hull side-armor plates of the **"Jagdtiger"** were 80mm thick and sloped at 25 degrees. The double door entry hatch shows some resemblance to the doors on the rear turret of the Soviet KW II. 38 projectiles and charges for the 12.8cm PaK 80/L/55 were carried separately in racks inside the fighting compartment.



JAGDPANZER 38(t) ''HETZER''



JAGDPANZER ELEFANT